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SHEPHERD UNIVERSITY

SHEPHERD COLLEGE CATALOG, 2001-03

Volume XLIII

June 2001

This 2001-03 Shepherd College Catalog is for information purposes only and is not considered a binding contract between Shepherd College and students. Changes may apply to both present and prospective students. Although College officials are available to advise students, it is the student's responsibility to comply with College policies, including the requirements for degrees.

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# ACADEMIC YEAR CALENDAR

## First Semester Fall 2001

8/15/01	Wed	New Freshmen and Transfers; Transfer Evaluations
8/15/01	Wed	Night Registration 6-7 p.m. — White Hall
8/16/01	Thu	Faculty Report for Fall Semester; Faculty Meetings
8/17/01	Fri	Orientation, Academic Advisement; Registration/Payment — New Freshmen, Transfers and Readmits
8/17/01	Fri	Add/Drop and Late Registration (Late Fee Applies) via RAIL begins at 8 p.m. (All hours except 4 a.m.-8 a.m.) Consult Advisor. New Students must register in person
8/20/01	Mon	Classes Begin
8/20/01	Mon	In Person Add/Drop and Late Registration (Late Fee Applies), 9 a.m.-4 p.m., Storer Ballroom — Consult Advisor New Students must register in person
8/24/01	Fri	Last Day to Add/Drop via RAIL all hours except 4 a.m.-8 a.m. or in the Storer Ballroom 9 a.m.-4 p.m. Consult Advisor
8/24/01	Fri	Last Day to Late Register via RAIL all hours except 4 a.m.-8 a.m. or in the Storer Ballroom 9 a.m.-4 p.m.
8/31/01	Fri	Last Day to Change a Course from Credit to Pass/Fail Status
9/03/01	Mon	Labor Day — Holiday
9/10/01	Mon	Last Day to Change a Course from Credit to Audit Status
9/28/01	Fri	Last Day to Withdraw from first 8-weeks class — See Advisor by Noon
10/05/01	Fri	Last Day to Apply for May 2002 Graduation — Begins in Career Development Center
10/08/01	Mon	First Day of Mid-term Exams
10/12/01	Fri	Last Day of Mid-term Exams
10/15/01	Mon	Second 8-weeks Classes Begin
10/15/01	Mon	Mid-term Grades Due — 9 a.m.
10/22/01	Mon	Mid-term Grades Distributed by Advisors
10/31/01	Wed	First Day of Academic Advisement for Continuing Students for Spring 2002
11/05/01	Mon	First Day of Spring 2002 RAIL Registration for Continuing Students; Telephones will be available in the Storer Ballroom 9 a.m.-4 p.m. Overrides and Schedule Time Conflicts, Office of the Registrar, 9 a.m.-4 p.m.
11/07/01	Wed	Last Day of Academic Advisement for Continuing Students for Spring 2002
11/15/01	Thu	Last Day to Withdraw from second 8-weeks Class — See Advisor by Noon
11/16/01	Fri	Last Day to Withdraw from a Full Semester Class — See Advisor by Noon
11/18/01	Sun	First Day of Thanksgiving Recess
11/25/01	Sun	Last Day of Thanksgiving Recess
12/10/01	Mon	Last Day of Classes
12/11/01	Tue	First Day of Final Exams
12/15/01	Sat	Last Day of Final Exams
12/17/01	Mon	First Semester Grades Due 9 a.m. — End of First Semester
12/18/01	Tue	Grades will be available via RAIL — Tentative Grades will be mailed in January

## Second Semester Spring 2002

1/07/02	Mon	New Freshmen and Transfers; Transfer Evaluations
1/07/02	Mon	Night Registration 6-7 p.m. — White Hall
1/08/02	Tue	Faculty Report for Spring Semester; Faculty Meetings
1/08/02	Tue	Orientation, Academic Advisement; Registration/Payment — New Freshmen, Transfers and Readmits

1/08/02	Tue	Add/Drop and Late Registration (Late Fee Applies) via RAIL begins at 8 p.m. (All hours except 4 a.m.-8 a.m.) Consult Advisor. New Students must register in person
1/09/02	Wed	Classes Begin
1/09/02	Wed	In Person Add/Drop and Late Registration (Late Fee Applies), 9 a.m.-4 p.m., Storer Ballroom — Consult Advisor New Students must register in person
1/15/02	Tue	Last Day to Add/Drop via RAIL all hours except 4 a.m.- 8 a.m. or in the Storer Ballroom 9 a.m.-4 p.m. — Consult Advisor
1/15/02	Tue	Last Day to Late Register via RAIL all hours except 4 a.m.- 8 a.m. or in the Storer Ballroom 9 a.m.-4 p.m.
1/21/02	Mon	Martin Luther King's Birthday — Holiday
1/28/02	Mon	Last Day to Change a Course from Credit to Pass/Fail Status
1/30/02	Wed	Last Day to Change a Course from Credit to Audit Status
1/30/02	Wed	Last Day to Withdraw from first 8-weeks class — See Advisor by Noon
2/25/02	Mon	First Day of Mid-term Exams
3/01/02	Fri	Last Day of Mid-term Exams
3/04/02	Mon	Second 8-weeks Classes Begin
3/04/02	Mon	Mid-term Grades Due — 9 a.m.
3/08/02	Fri	Last Day to Apply for August and December 2002 Graduation — Begins in Career Development Center
3/11/02	Mon	Mid-term Grades Distributed by Advisors
3/17/02	Sun	First Day of Spring Recess
3/24/02	Sun	Last Day of Spring Recess
3/25/02	Mon	First Day of Summer 2002 RAIL Registration for Continuing Students; Telephones will be available in the Storer Ballroom 9 a.m.-4 p.m. Overrides and Schedule Time Conflicts, Office of the Registrar, 9 a.m.-4 p.m.
4/03/02	Wed	First Day of Academic Advisement for Continuing Students for Fall 2002
4/08/02	Mon	First Day of Fall 2002 RAIL Registration for Continuing Students; Telephones will be available in the Storer Ballroom 9 a.m.-4 p.m.. Overrides and Schedule Time Conflicts, Office of the Registrar, 9 a.m.- 4 p.m.
4/10/02	Wed	Last Day of Academic Advisement for Continuing Students for Fall 2002
4/11/02	Thu	Last Day to Withdraw from second 8-weeks class - See Advisor by Noon
4/12/02	Fri	Last Day to Withdraw from a Full Semester Class — See Advisor by Noon
4/18/02	Thu	First Day of Spring Weekend Recess (If no snow days used)
4/21/02	Sun	Last Day of Spring Weekend Recess (If no snow days used)
4/24/02	Wed	McMurrin Scholars Convocation
5/03/02	Fri	Last Day of Classes
5/06/02	Mon	First Day of Final Exams
5/10/02	Fri	Last Day of Final Exams
5/13/02	Mon	Second Semester Grades Due 9 a.m. — End of Second Semester
5/14/02	Tue	Grades will be available via RAIL — Tentative
5/18/02	Sat	Commencement

## First Semester Fall 2002

8/14/02	Wed	New Freshmen and Transfers; Transfer Evaluations
8/14/02	Wed	Night Registration 6-7 p.m. — White Hall
8/15/02	Thu	Faculty Report for Fall Semester; Faculty Meetings
8/16/02	Fri	Orientation, Academic Advisement; Registration/Payment — New Freshmen, Transfers and Readmits
8/16/02	Fri	Add/Drop and Late Registration (Late Fee Applies) via RAIL begins at 8 p.m. (All hours except 4-8 a.m.) Consult Advisor. New Students must register in person
8/19/02	Mon	Classes Begin

8/19/02	Mon	In Person Add/Drop and Late Registration (Late Fee Applies), 9 a.m.-4p.m., Storer Ballroom — Consult Advisor. New Students must register in person
8/23/02	Fri	Last Day to Add/Drop via RAIL all hours except 4 a.m.-8 a.m. or in the Storer Ballroom 9 a.m.-4 p.m. Consult Advisor
8/23/02	Fri	Last Day to Late Register via RAIL all hours except 4 a.m.-8 a.m. or in the Storer Ballroom 9 a.m.-4 p.m.
8/30/02	Fri	Last Day to Change a Course to Pass/Fail Status
9/02/02	Mon	Labor Day — Holiday
9/09/02	Mon	Last Day to Change a Course from Credit to Audit Status
9/20/02	Fri	Last Day to Withdraw from first 8-weeks class — See Advisor by Noon
10/04/02	Fri	Last Day to Apply for May 2003 Graduation — Begins in Career Development Center
10/07/02	Mon	First Day of Mid-term Exams
10/09/02	Wed	Second 8-weeks Classes Begin
10/11/02	Fri	Last Day of Mid-term Exams
10/14/02	Mon	Mid-term Grades Due — 9 a.m.
10/21/02	Mon	Mid-term Grades Available on RAIL
10/30/02	Wed	First Day of Academic Advisement for Continuing Students for Spring 2003
11/04/02	Mon	First Day of Spring 2003 RAIL Registration for Continuing Students; Overrides, Schedule Time Conflicts. Office of the Registrar, 9 a.m.-4 p.m.
11/06/02	Wed	Last Day of Academic Advisement for Continuing Students for Spring 2003
11/15/02	Fri	Last Day to Withdraw from a Full Semester Class — See Advisor by Noon
11/22/02	Fri	Last Day to Withdraw from second 8-weeks Class — See Advisor by Noon
11/24/02	Sun	First Day of Thanksgiving Recess
12/01/02	Sun	Last Day of Thanksgiving Recess
12/09/02	Mon	Last Day of Classes
12/10/02	Tue	First Day of Final Exams
12/14/02	Sat	Last Day of Final Exams
12/16/02	Mon	First Semester Grades Due 9 a.m. — End of First Semester
12/17/02	Tue	Grades will be available via RAIL, Tentative

### Second Semester Spring 2003

1/09/03	Thu	New Freshmen and Transfers; Transfer Evaluations
1/09/03	Thu	Night Registration 6-7 p.m. — White Hall
1/10/03	Fri	Faculty Report for Spring Semester; Faculty Meetings
1/10/03	Fri	Orientation, Academic Advisement; Registration/Payment — New Freshmen, Transfers and Readmits
1/10/03	Fri	Add/Drop and Late Registration (Late Fee Applies) via RAIL begins at 8 p.m. (All hours except 4 a.m.-8 a.m.) Consult Advisor. New Students must register in person
1/13/03	Mon	Classes Begin
1/13/03	Mon	In Person Add/Drop and Late Registration (Late Fee Applies), 9 a.m.-4 p.m., Storer Ballroom — Consult Advisor New Students must register in person
1/17/03	Fri	Last Day to Add/Drop via RAIL all hours except 4- 8 a.m. or in the Storer Ballroom 9 a.m.-4 p.m. — Consult Advisor
1/17/03	Fri	Last Day to Late Register via RAIL all hours except 4- 8 a.m. or in the Storer Ballroom 9 a.m.-4 p.m.
1/20/03	Mon	Martin Luther King's Birthday — Holiday
1/27/03	Mon	Last Day to Change a Course to Pass/Fail Status
2/03/03	Mon	Last Day to Change a Course from Credit to Audit Status
2/14/03	Fri	Last Day to Withdraw from first 8-weeks class — See Advisor by Noon
3/03/03	Mon	First Day of Mid-term Exams
3/05/03	Wed	Second 8-weeks Classes Begin
3/07/03	Fri	Last Day of Mid-term Exams

3/10/03	Mon	Mid-term Grades Due — 9 a.m.
3/17/03	Mon	Mid-term Grades Available on RAIL
3/19/03	Wed	Last Day to Apply for August and December 2003 Graduation — Begins in Career Development Center
3/23/03	Sun	First Day of Spring Recess
3/30/03	Sun	Last Day of Spring Recess
3/31/03	Mon	First Day of Summer 2003 RAIL Registration for Continuing Students; Overrides, Schedule Time Conflicts. Office of the Registrar, 9 a.m.-4 p.m.
4/02/03	Wed	First Day of Academic Advisement for Continuing Students for Fall 2003
4/07/03	Mon	First Day of Fall 2003 RAIL Registration for Continuing Students; Overrides, Schedule Time Conflicts. Office of the Registrar, 9 a.m.-4 p.m.
4/09/03	Wed	Last Day of Academic Advisement for Continuing Students for Fall 2003
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4/18/03	Fri	Last Day to Withdraw from second 8-weeks class - See Advisor by Noon
4/24/03	Thu	First Day of Spring Weekend Recess (If no snow days used)
4/27/03	Sun	Last Day of Spring Weekend Recess (If no snow days used)
4/30/03	Wed	McMurrin Scholars Convocation
5/07/03	Wed	Last Day of Classes
5/09/03	Fri	First Day of Final Exams
5/15/03	Thu	Last Day of Final Exams
5/19/03	Mon	Second Semester Grades Due 9 a.m. — End of Second Semester
5/20/03	Tue	Grades will be available via RAIL, Tentative
5/24/03	Sat	Commencement

## SECTION I

# GENERAL INFORMATION

Shepherd College is a state-supported institution within the West Virginia system of higher education. From its beginnings over a century ago, the College has evolved into a comprehensive center of higher learning, serving a number of related, yet distinct roles:

- The College offers bachelor of arts, bachelor of fine arts, and bachelor of science degrees in a wide range of fields, encompassing the liberal arts, business administration, teacher education, the social and natural sciences, and other career-oriented areas.

- The College offers a diverse selection of programs leading to associate's degrees. There is continual planning to expand further the variety of career-oriented programs available to students whose immediate objective is not a baccalaureate degree.

- The College provides credit courses for individuals with no degree aspirations, but who seek to broaden and update their knowledge in either familiar or new fields of intellectual endeavor.

- For the northern Shenandoah Valley region as a whole, the College is a center for noncredit continuing education, public service, and convenient citizen access to extensive programs in art, music, athletics, and other areas of public interest.

Shepherd College has a responsibility to extend its resources beyond the campus, bringing higher education closer to those who seek it. The College has an administrative center in Petersburg, West Virginia, to serve the South Branch Valley counties of the state. Courses are offered regularly at locations away from Shepherdstown, providing college-level study to people throughout eastern West Virginia and the surrounding region.

## ACCREDITATION

The College is accredited by The Higher Learning Commission and a member of the North Central Association <[www.ncahigherlearningcommission.org](http://www.ncahigherlearningcommission.org)> phone 312/263-0456. Individual programs are accredited by the Council on Social Work Education, the National Association of Schools of Music, the West Virginia State Board of Examiners for Registered Nurses, the National League for Nursing Accrediting Commission, and the National Council for the Accreditation of Teacher Education.

## SCENIC AND HISTORIC LOCATION

Shepherd College is situated in the Shenandoah Valley, on the banks of the Potomac River, in historic Shepherdstown, West Virginia. The oldest town in the state, Shepherdstown is a quaint college community, with the town and campus combining to offer a unique learning-living environment.

Located in the Eastern Panhandle of West Virginia, Shepherdstown is within 20 miles of nearby Maryland, Pennsylvania, and Virginia. It is only 65 miles from the metropolitan areas of Washington, D.C., and Baltimore, Maryland. Within a short hike or drive of the campus are such well-known historic landmarks as Harpers Ferry and the Antietam Battlefield. Across the Potomac River from the campus is the Chesapeake and Ohio Canal National Historical Park. The C & O Canal National Historical Park, developed along the towpath of the old canal, is a beautiful recreational sanctuary, extending 184.5 miles from Cumberland, Maryland, to Georgetown, in the nation's capital.

The United States Capitol and numerous other federal and state facilities are easily accessible. Richmond and Williamsburg, Virginia, as well as New York and Philadelphia, are all within a few hours drive of Shepherdstown. Guest lecturers and performers, field trips, internships, and career opportunities are advantages directly related to the location of Shepherd College.

## HISTORY OF THE COLLEGE

Shepherd College began when the county seat of Jefferson County, West Virginia, was moved from Shepherdstown to Charles Town in July 1871. The people of Shepherdstown and vicinity decided to use the vacated courthouse for educational purposes. An article of incorporation for a school to be known as Shepherd College, designed to instruct students “in languages, arts and sciences,” was drawn up and signed by C.W. Andrews, A.R. Boteler, C.T. Butler, G.M. Beltzhoover, David Billmyer, Samuel Knott, and Henry Shepherd. This body of incorporators gave itself power to elect instructors, pay salaries, and prescribe courses of study. Professor Joseph McMurran was appointed first principal of the institution, which opened with 42 students in September 1871, under the authority of the Board of Trustees.

On February 27, 1872, the Legislature of West Virginia passed the following act: “That a branch of the State Normal School be and the same is hereby established at the building known as Shepherd College, in Shepherdstown, in the county of Jefferson.”

Shepherd College became a four-year college for the training of teachers on July 1, 1930, at which time the institution began granting the bachelor of arts degree. Shepherd was authorized to implement liberal arts programs in 1943, and in 1950 the bachelor of science degree was added.

Also in 1950 Shepherd was accredited by the North Central Association of Colleges and Schools and in 1951 it became a member of the Association of American Colleges.

In the past two decades, Shepherd has experienced a 200 percent enrollment growth and added 11 new buildings, including the \$9 million Robert C. Byrd Science and Technology Center.

## MISSION STATEMENT

Shepherd College, a fully accredited public institution of higher education founded in 1871 and located in the Eastern Panhandle of West Virginia, offers a wide variety of distinguished degree programs and other learning opportunities to both traditional and non-traditional students. Our College attracts students from the region, the nation, and beyond. Understanding the importance of diversity, we continue to work toward recruiting and retaining a multicultural student body, faculty, and staff.

The heart of our baccalaureate curriculum is a formal General Studies Program that prepares a student to take his or her place as an educated citizen in a changing world. Our Community and Technical College provides a curriculum that is both complementary to, and integrated with, the four-year College, offering associate’s degrees and continuing education. The College is committed, as well, to developing and implementing a selected number of graduate programs.

At Shepherd College we are dedicated to expanding our intellectual and cultural resources with the assistance of technological advance and our advantageous location just 70 miles from the Baltimore/Washington metropolitan area. At the same time, the small, residential setting of the College creates an environment in which students are able to work closely with faculty, staff, and administrators who encourage their intellectual growth, personal fulfillment, and academic and professional excellence. Student learning is central to the culture of our institution, and finding ways to improve student learning is a continuing process.

Shepherd College, through its alliances with business organizations, industry, and government agencies, promotes economic development in the region. The College enhances the cultural atmosphere of the community with performing arts activities, public lectures, and athletic events. Outreach experiences, such as student internships and cooperative agreements, also link the College to the life of the community.

The faculty, staff, and administration of Shepherd College are dedicated to remaining in the forefront of advances in contemporary education and professional programs as we serve our students, community, and region in the 21st century.

## THE LIBRARY

The Ruth Scarborough Library collection is composed of varied materials, numbering approximately 444,000 items. Printed and microtext materials make up the majority of the collection. The holdings include about 162,000 books and bound periodicals supplemented by books and periodicals on some 140,000 microfiche and microfilm reels. Other parts of the collection include phonograph records, cassette tapes, slides, media kits, and video cassettes. The library currently subscribes to 918 periodicals and newspapers. Since 1971, the library has been a selective repository for federal government publications and regularly receives West Virginia state government publications.

The library's computerized catalog provides Web access to materials in the Scarborough collection. Computer research services include public-use workstations accessing the Internet and a number of CD-ROM based local databases. The library also offers on-line computer searching of commercial databases and full-text resources..

The three-story, air-conditioned structure, which the library occupied in October 1965, is designed as a place of study, particularly for independent study and research. The accommodations for study include reading rooms, group study rooms, and individual study carrels and cubicles. Areas for viewing visual materials and a microtext reading area are available. The West Virginia Room houses a special collection of printed materials relating to state and regional history. An expansion of the Scarborough Library is scheduled to open in 2002. The expansion will include the Center for Legislative Studies whose purpose is to promote an understanding of the United States Congress and the legislative process.

## SUMMER SESSION

The summer session at Shepherd College is an integral part of the College year. All general College requirements relating to high academic standards, sound scholarship, and good citizenship apply in the summer just as in the regular academic year. The summer session is organized into two terms of five weeks each.

## OFF-CAMPUS PROGRAM

In order to serve the educational needs of the citizens of the eight eastern counties of West Virginia, Shepherd College organizes and conducts courses at convenient and accessible off-campus sites throughout the region. All off-campus course work, scheduling, and staffing requirements are commensurate with those adopted for on-campus programs. Credits earned in off-campus courses are equivalent to residential credits, reflecting the standards of excellence long associated with Shepherd College.

To serve Grant, Hampshire, Hardy, Mineral, and Pendleton counties more effectively, Shepherd College has established an administrative center for off-campus instruction at Petersburg. Currently, through the Shepherd College South Branch, students may complete all course requirements at off-campus sites for certain programs. Inquiries regarding courses and programs in the South Branch should be directed to the Director, Shepherd College South Branch, 115 Virginia Ave., Petersburg, West Virginia 26847.

In Berkeley, Jefferson, and Morgan counties, off-campus classes are offered as an integral component of the College's regular schedule of instruction. Through the off-campus and evening programs, students may complete virtually all course requirements for certain degrees. Persons interested in courses to be taught off-campus should contact the provost of the Community and Technical College.

As a part of the institution's mission to improve and expand career-oriented programs in eastern West Virginia, the College has developed cooperative educational opportunities with multi-county vocational centers within the region. Under these arrangements, students who complete post-secondary vocational training in specified fields at the cooperating centers may qualify for college credit by competency examination. Details on the cooperative programs are available from the provost of the Community and Technical College.

# SECTION II

# ADMISSIONS

## ADMISSION INFORMATION

Admission to Shepherd College shall be determined without regard to national origin, race, color, age, religion, gender, physical handicap, or financial status. Admission does not guarantee on-campus housing. All correspondence relevant to admission and all credentials in support of an application for a full-time student should be on file by the **February 1 priority processing date for the fall semester or summer sessions for freshmen or the March 15 priority processing date for transfer or readmitted students or by November 1 for all students for the spring semester.** Applications received after the established application dates may be processed on a space available basis or may be held until the next academic term before they will be processed.

The admissions and academic personnel of Shepherd College may require enrollment in basic skills courses and programs or other appropriate measures for a student whose high school record and/or standardized test scores indicate a deficiency in certain areas.

The Shepherd College curriculum requires students to pursue a broad secondary program of college preparation which includes the following minimum units: English (composition, grammar, and literature), 4 units; Social Science (including American history), 3 units; Laboratory Science (including biology, chemistry, or physics), 2 units; Mathematics (algebra I and a higher mathematics course; algebra II and geometry are recommended), 2 units; Physical Education, 1 unit; additional elective units to equal a minimum of 21 units (20 units for students graduating from high school before 1989) or the state requirement for high school graduation. At least two units of a foreign language, a computer course, and additional mathematics and laboratory science courses are recommended as electives. Freshman applicants who graduated from high school in 1990 or thereafter must meet the minimum high school academic credit requirements of the West Virginia Higher Education Policy Commission.

The College reserves the right to deny admission or readmission to any individual whose needs it does not feel qualified to meet. Individuals wishing to appeal an admissions decision or who wish an exception to the admissions policy may write to the Admissions and Credits Committee at Shepherd College to request the appeal or policy exception.

Admission to Shepherd College does not guarantee admission to a particular field of study. Students seeking admission into programs which have limited enrollments must apply separately for admission to the individual programs as well as to the College for general admission. Departmental application forms must be submitted directly to the department chairpersons by specified dates; additional information on admission to limited enrollment programs is listed in this section.

Shepherd College shall bring into its community a wide variety of backgrounds, attitudes, and interests. A conscious effort is made to include in each new student class individuals with special talents, abilities, and interests as well as students from diverse geographic, racial, ethnic, religious, and economic backgrounds. The College will continue its outreach programs by visiting a wide variety of high schools and community colleges to meet and talk with diverse groups of students, by participating in high school and community college day/night/fair programs, and by working with churches, sororities, fraternities, and other community-based organizations, especially those with a significant number of minority students and constituents. The College also will utilize such other strategies as professional networking, advertisements in minority student oriented publications, direct mail, and community-based programs to further this commitment to diversity.

## Application Procedure

Prospective students may obtain admission application materials by calling (304/876-5212 or 800/344-5231) or writing the Office of Admissions, Shepherd College, P.O. Box 3210, Shepherdstown, West Virginia 25443. The application form may be printed from the Office of Admissions Web page <[www.shepherd.edu/pub\\_info/admissions.html](http://www.shepherd.edu/pub_info/admissions.html)>. The completed admission application form must be returned to the Office of Admissions.

## Materials

All students pursuing a program of study must submit the following credentials to be considered for admission to Shepherd College: application for admission, high school transcript showing senior year courses and the cumulative grade point average on a 4.0 scale or two final college transcripts from each college attended, and Enhanced American College Test or Recentered Scholastic Assessment Test scores (freshman applicants or transfer applicants in teacher education programs only). An admissions application fee of \$30 is charged to all degree-seeking applicants and to those persons completing the regular admissions application form. This fee must be submitted with the admissions application. Shepherd College recognizes the American College Test's or College Board's Application Fee Waiver Program for economically-disadvantaged students; the appropriate request for a fee waiver should be submitted with the admissions application form by the high school guidance counselor or college counseling center staff. In addition, college transfer students must submit a Student Personnel Record Form completed by the student affairs office of the college last attended.

Freshman applicants should request that their high school transcript, showing all grades including senior year courses and a grade point average on a 4.0 grading scale and courses taken as well as test scores from the Enhanced ACT (American College Test) or SAT (Scholastic Assessment Test), be sent to the Office of Admissions by the high school guidance counselor. Transfer students should request official transcripts be sent to the Office of Admissions directly from the registrar of all institutions attended. Also, the student personnel record form must be completed by the dean of students of the last institution attended.

After all application materials and credentials have been received, the Office of Admissions will notify applicants for the fall semester of its decisions on a rolling basis as long as openings remain in the freshman or transfer classes. Students admitted for the fall semester must confirm their intent to enroll and submit a nonrefundable enrollment deposit of \$100 prior to May 1 to hold their place in the class.

A health form completed by the family physician also is required, prior to the beginning of classes. The Health Record Requirements form is sent to students upon acceptance. Students desiring financial aid should complete and mail the FAFSA by the stated deadlines.

## Immunization Requirement

All new/transfer students under the jurisdiction of the West Virginia Higher Education Policy Commission are required to show proof of immunity to measles and rubella (two doses of the MMR vaccine, one administered at school age, or a rubella titre), prior to enrollment. A TB test in the year prior to enrollment is also required. Individuals born prior to 1957 are exempt of the measles and rubella requirements. The college requires a completed health record for all full-time students. Students will not be permitted to register for courses until they have provided proof of immunity.

All full-time students must submit a complete health record with the following information. Students with a medical exemption should attach a letter from their physician. Students claiming religious exemptions will need a statement from their religious faith leader.

### 1. Immunizations

- a. Date and results of a TB test within one year prior to entrance.
- b. A tetanus shot within 5-10 years.
- c. Proof of immunity to measles and rubella with one of the following documents (students born before 1957 are exempt from this requirement):
  - i. Dates of two doses of MMR vaccine, one at age 5 or older.
  - ii. Date and results of a rubella titre (a blood test).

- iii. Dates and medical verification of having had the disease.
- 2. Results of a physical examination given within one year prior to entrance.

## Selective Service Requirement

A person may not enroll in a state-supported institution of post- secondary higher education unless he is in compliance with the Military Selective Act. 50 U.S.C. Appendix §451, et seq., and the amendments thereto. (WV SB. No. 524. Article IF. Privileges and Prohibitions. §15-1F-10.)

## Residence Hall Application

The residence hall housing application and damage deposit should be submitted immediately by all students desiring and/or required to live in a College residence hall (see section on Residence Life) after admission to the College is granted. This application form is available from the Office of Admissions and should be submitted to the Residence Life Office, along with a \$50 damage deposit. Applicants should file their residence hall application and damage deposit soon after admission. For priority room assignment, housing applications must be received by the Residence Life Office by June 1. A \$100 nonrefundable room payment is required from those applicants desiring to have guaranteed housing. This \$100 advance payment is subtracted from the fall semester room charge. Students who require disability-related accommodations should provide appropriate documentation and submit their applications in a timely manner.

For those students who make advance payment on rent, housing assignments are made in chronological order based on the date appearing on the receipt for the \$50 damage deposit. Deposit receipts are written after the student has been admitted to the College; the date that the residence hall housing application and \$50 damage deposit are received by the Residence Life Office does influence housing assignments.

## New Students

Students who have been admitted to the College will receive instructions and information from the Office of Admissions or the Office of Student Affairs regarding the academic advisement, orientation, and registration programs. A faculty advisor will be appointed for all first-time enrollees. During the academic semester, students should feel free to contact their advisor to plan and discuss their schedule and academic program. Advisors are chosen in the field in which the student is majoring.

New freshman and transfer students entering Shepherd College for the first time must attend an early registration and testing session held in June or July. Students attending these sessions meet with their academic advisors, plan their fall course schedules, and register for their fall semester courses.

An orientation program is held prior to classes during August and January of each year. All new and readmitted students are required to attend. Exceptions may be granted for non-resident students who are 25 or older and who carry less than 9 credit hours.

## Admission of High School Graduates In-State Students

All residents of West Virginia who are graduates of accredited or state-approved high schools are eligible for admission to degree programs at Shepherd College if they meet the following minimum requirements: meet the minimum high school academic unit requirements, have a high school grade point average of 2.0, and have minimum Enhanced ACT scores of 17 or appropriate Recentered SAT scores. Applicants with Enhanced ACT scores below 19 or Recentered SAT scores below 920 (old SAT 800) will be required to take placement tests prior to admission or they may be granted conditional admission with the requirement that appropriate developmental courses be taken their first year. Applicants who have been graduated from high school for more than five years at the time of application for admission do not need the ACT or SAT except for admission to the engineering or nursing programs. Non-high school graduates whose senior class graduated one year previously may be admitted if they present a GED. Students admitted without ACT or SAT scores must take the ACCUPLACER placement examination prior to course registration.

Freshman applicants for admission who graduated from high school one or more semesters prior to applying for admission must include a detailed résumé of their activities (employment, military service) from the time of high school graduation until planned enrollment at Shepherd College. This information should be submitted with the admissions application form and should be written on a separate sheet of paper.

## Academic Foundations Program

The Academic Foundations Program at Shepherd is designed to bridge the gap between high school and college for interested West Virginia students who do not meet the grade point average or test score admissions standards outlined previously.

Through courses in reading, study skills, composition, and mathematics, the program assists recent high school graduates and nontraditional students who wish to attend college but whose skills need further development. The credit hours for these courses apply toward hours needed to qualify as a full-time student but do not count toward fulfilling graduation requirements. The grade earned does not count in the grade point average. Admission to Shepherd through the Academic Foundations Program is based on the results of a personal interview and various placement tests.

Additionally, other applicants to Shepherd College degree programs may be referred by the Office of Admissions to the Office of Student Academic Support Services and Advisement for assessment to determine placement in Academic Foundations course work. Based on the results of this evaluation, recommendation for regular admission or admission through the Academic Foundations Program will be made.

Students who gain admission through the Foundations Program must satisfactorily complete the required Foundations courses within two semesters of enrollment in order to continue their studies. Satisfactory completion is defined as a minimum of 2.0 in each prescribed Academic Foundations course.

The program provides a supportive environment in which to learn, featuring individualized instruction and learning assistance sessions outside of class. Completion of the Academic Foundations Program will assist students in becoming academically prepared to pursue a Shepherd College degree. Additional information about the program may be obtained from the Student Academic Support Services Office.

## Out-of-State Students

All residents of states other than West Virginia who are graduates of accredited or state-approved high schools may be considered for admission to degree programs at Shepherd College if they meet the following minimum requirements: meet the minimum high school academic unit requirements, have a high school grade point average of 2.5 or better, and have a minimum test score of 20 on the Enhanced American College Test (ACT) or a minimum score of 970 (860 on the old SAT) on the Recentered Scholastic Assessment Test (SAT).

Applicants who have been graduated from high school for more than five years at the time of application for admission do not need ACT or SAT scores except for admission to the engineering or nursing programs. Students admitted without ACT or SAT scores must take the ACCUPLACER placement examination prior to course registration.

Freshman applicants for admission who have been graduated from high school one or more semesters prior to applying for admission must include a detailed résumé of their activities (employment, military service) from the time of high school graduation until planned enrollment at Shepherd College. This information should be submitted with the admissions application form and should be written on a separate sheet of paper.

## Freshman Placement Standards

The Freshman Placement Standards for students in the West Virginia Higher Education Policy Commission were developed to assure the integrity of associate's and baccalaureate degrees, to increase the retention and graduation rates of students, and to encourage high school students to improve their academic preparation for college.

## Mathematics

Unless students' programs require a particular math course, students usually take MATH 101 Introduction to Mathematics to satisfy their general studies math requirement. Students may also choose some other 3 or 4 credit mathematics courses to satisfy their general studies math requirement, as listed below. As mandated by state policy, some students must begin with developmental courses (which have the prefix ACFN) with placement in these courses depending on ACT and SAT scores. If students have been out of high school for a period of five years or more, or have never taken the ACT or SAT, or possess a GED, they must take the ACCUPLACER (a standardized computer-based math test administered by Student Academic Support Services, Knutti 114) before enrolling in any mathematics class. The mathematics placement is as follows:

**ACT math score less than 19 or no ACT math score (or SAT math score less than 460)**

- Successful completion of ACFN 060\* Basic Mathematics AND either ACFN 070\* Pre-Algebra and ACFN 080\* Basic Algebra OR ACFN 090\* Intermediate Algebra.

- Passing the appropriate ACCUPLACER tests. Testing may be scheduled through Student Academic Support Services, Knutti 114.

*\* ACFN courses do not count toward graduation credit.*

No exceptions can be made to this policy in accordance with the Higher Education Policy Commission's February 2001 Policy on Freshman Assessment and Placement Standards.

**ACT math score 19 to 21 (or SAT math score 460 to 500)**

- It is recommended but NOT required that students with scores in this range successfully complete MATH 105 Algebra before attempting any general studies mathematics course numbered higher than MATH 105.

**ACT math score 22 or higher (or SAT math score 520 or higher)**

- To complete the general studies requirements of the College, students can select one of the following courses (the proper choice can be dictated by their major requirements): MATH 101 Introduction to Mathematics OR MATH 108 Precalculus (can be waived by a competency test for students starting with MATH 207 Calculus) OR MATH 154 Finite Mathematics OR MATH 205 Calculus with Applications OR MATH 314 Statistics.

- Entering freshmen who wish to enroll in MATH 207 Calculus I may do so if they meet all of the following requirements: ACT math score of 25 or higher (or SAT math score 580 or higher) and successful completion of a precalculus or analytical geometry course in high school.

For more information about advanced placement, contact Dr. Peter Morris, chair of the Department of Mathematics and Engineering, Stutzman-Slonaker Hall 211F, 304/876-5407 or Dr. Howard Seiler, director of Student Academic Support Services, Knutti 114, 304/876-5400.

## English Composition

1. Students may not enroll at any two-year or four-year institution of the West Virginia Higher Education Policy Commission in an English composition course which is designed to be applied toward a baccalaureate degree or associate's degree at a four-year college or university or an associate's degree at a community college unless the minimum score prescribed below is earned on at least one of the following tests:
  - a. A score of 18 or above on the English section of the ACT.
  - b. A score of 450 on the verbal portion of the SAT-1.
  - c. A scaled score of 88 on the sentence skills test of the College Board's ACCUPLACER testing system.

Students not meeting the above standards for English and mathematics placement must successfully complete a program or programs in developmental (pre-college level) mathematics or English composition in order to be placed in courses which count toward a baccalaureate or associate's degree.

Students will initially be placed in developmental courses according to their ACT or SAT-1 scores. Students wishing to challenge their course placement may take the ACCUPLACER test. ACCUPLACER tests are administered in the Office of Student Academics Support Services,

Knutti 114. An ACCUPLACER test may be scheduled by call the Office of Student Academic Support Services at 304/876-5221 or 800/344-5231 ext. 5221. Office hours are Monday-Friday, 8 a.m. to 4:30 p.m. There is a \$5 charge for the administration of the ACCUPLACER testing program. A student who has graduated from high school at least five years ago or who possesses a GED is exempt from the \$5 fee.

### Reading

1. Students scoring 19 or above on the reading section of the Enhanced ACT, 460 (400 on the old SAT) or above on the verbal section of the Recentered SAT, or 30 percentile or above on the Nelson-Denny Reading Test will be considered to have met the minimal reading skill requirements.
2. Institutions in the West Virginia Higher Education Policy Commission are encouraged to provide assistance for students who do not meet the standard and who are enrolled in a program leading to an associate's or bachelor's degree.
3. Any institution in the West Virginia Higher Education Policy Commission may elect to set higher placement scores than the minimum scores described above.

## Advanced Placement Tests

In compliance with West Virginia Higher Education Policy Commission Procedure No. 22 in compliance with Senate Bill 243, Series 4, Shepherd College will grant credit for the following Advanced Placement Tests with the test score indicated:

- American History—grades of 3, 4, or 5; HIST 201 and HIST 202
- Studio Art (general)—grades of 4 or 5; ART 204 (for art majors)
- Art History—grades of 3, 4, or 5; ART 103 and 1 hr. free elective
- Art History—grades 4 or 5; ART 203 (for art majors)
- Biology—grades of 3, 4, or 5; BIOL 101 and BIOL 102
- Calculus AB—grades of 3, 4, or 5; MATH 207
- Calculus BC—grades of 3, 4, or 5; MATH 207 and 208
- Chemistry—grades of 3, 4, or 5; CHEM 207, CHEM 207L, CHEM 209, CHEM 209L
- Classics—no credit given
- Computer Science A—grades of 3, 4, or 5; CIS 211
- Computer Science AB—grades of 3, 4, or 5; CIS 212
- Economics (macro and micro)—grades of 3, 4, or 5; ECON 205 and 206
- English (language and composition)—grades of 3, 4, or 5; ENGL 101
- English (literature and composition)—grades of 3, 4, or 5; ENGL 102
- Environmental Science—no credit given
- European History—grades of 3, 4, or 5; HIST 102, HIST 103
- French Language—grades of 3 or 4; FREN 101  
grade of 5; FREN 101 and 102
- German Language—grades of 3 or 4; GERM 101  
grade of 5; GERM 101 and 102
- Government and Politics (American)—grades of 3, 4 or 5; PSCI 101
- Human Geography—grades 3, 4, or 5; GEOG 100
- Music (Theory)—grades of 3, 4, or 5 ; MUSC 111 and 1 hr free elective
- Music (Theory)—grades of 4 or 5; MUSC 103 (for music majors)
- Physics B—grades of 3, 4, or 5; PHYS 201, 201L, 202, and 202L
- Physics C-Mech—grades of 3, 4, or 5; PHYS 201, 201L
- Physics C-E&M—grades of 3, 4, or 5; PHYS 202, 202L
- Psychology—grades of 3, 4, or 5; PSYC 203
- Spanish Language—grades of 3 or 4; SPAN 101  
grade of 5; SPAN 101 and 102
- Statistics—grades 4 or 5; MATH 314
- World History—grades 3, 4, or 5; HIST 101 and HIST 102

To receive credit for Advanced Placement Tests, students must have the AP test results sent to the Office of Admissions at Shepherd by the testing service. As new AP tests are developed, additional credit may be awarded.

## CLEP Tests

Students are awarded credit for the successful completion of many of the CLEP Subject Examinations. To obtain credit for an examination, Shepherd College has established a minimum score for each CLEP Test. A CLEP Test should not be taken for a subject in which you have previously enrolled. A CLEP exam cannot be used to change a grade of D or F received for course work at Shepherd College or another institution.

Students currently enrolled at Shepherd College may take the CLEP examinations on campus. See the Career Development Center for more information on testing. Persons desiring to enroll at Shepherd College who wish CLEP credit as part of their admission must take the examinations at another testing center and have the test results sent to Shepherd. At present, the closest center to Shepherd College is located at Frederick Community College, Frederick, Maryland.

## Admission of Students from Nonaccredited/Approved High Schools

Applicants for admission to Shepherd College who are graduates of high schools which are not accredited by a regional accrediting agency or not approved by the State Board of Education of the state in which they are located must submit scores from the General Educational Development (GED) Test to be considered for admission. Applicants will be considered for admission if they attain a standard score of 40 (which is the state requirement for a high school diploma) on each of the five parts of the GED Test, and have an average standard score of 45 or above on the entire test. Copies of the applicant's high school transcript, Enhanced American College Test (ACT) or Recentered Scholastic Assessment Test (SAT) scores and GED Test scores must be sent directly to the Office of Admissions at Shepherd College by the high school counselor and testing centers.

## Admission of Students Who Have Been Home Schooled

Since West Virginia Higher Education Policy Commission admissions policies require that students admitted to public institutions either be graduates of high schools which are either accredited by a regional accrediting agency or are approved by the State Board of Education of the state where they are located or that they hold the GED, applicants for admission to Shepherd College who have been home schooled must submit scores for the General Educational Development (GED) Test to be considered for admission as freshmen. Applicants will be considered for admission if they attain a standard score of 40 (which is the state requirement for a high school diploma) on each of the five parts of the GED Test, and have an average standard score of 45 or above on the entire test. Copies of the applicants' home schools transcript, Enhanced American College Test (ACT) or Recentered Scholastic Assessment Test (SAT) scores and the GED Test scores must be sent directly to the Office of Admissions at Shepherd College by the school and testing centers.

## Admission by GED Test

Non-high school graduates (veterans and persons over the age of 19 who have been out of high school at least one year or whose senior class has graduated one year previously) may be admitted if they attain a standard score of 40 (which is the state requirement for a diploma) on each of the five parts of the General Educational Development Test or an average standard score of 45 or above on the entire test. GED scores must be sent directly to the Office of Admissions from the testing center or county superintendent of schools.

Applicants for admission who have held the GED more than five years at the time of application for admission do not need ACT or SAT scores except for admission to the engineering or nursing programs. Applicants holding the GED less than five years must submit scores from either the ACT or SAT. Students admitted without ACT or SAT scores must take the ACCUPLACER placement examination prior to course registration.

Applicants for admission should submit a detailed résumé of their activities (employment, military service) from the time they left high school until their planned enrollment at Shepherd College.

## Admission to Limited Enrollment Programs

### Admission to the Engineering Program

Students seeking admission into the Associate of Science Degree Program in Engineering at Shepherd College must meet the general requirements for admission to the College. They also must meet the following additional requirements for admission into the engineering program which has a limited enrollment:

1. Have completed two units in laboratory science, two units in algebra, one unit in plane geometry, and one unit in trigonometry (or advanced math).
2. Have a minimum ACT math score of 24, or if a West Virginia resident have a B high school average and a minimum ACT math score of 21.

Students not initially meeting these requirements may be admitted to the program on an individual basis upon satisfactory completion of appropriate college courses.

### Admission to the Nursing Programs

#### Associate of Science Degree in Nursing

Students seeking admission into the Associate of Science Degree Program in Nursing at Shepherd College must meet the general requirements for admission to the College. They must submit to the Office of Admissions:

1. The application for admission to Shepherd College.
2. Transcripts of high school work showing a grade point average of 2.5 or better or transcripts showing previous college work with a grade point average of 2.0 or better. If GED is taken, submit the results.
3. Freshman applicants must have an Enhanced ACT of 20 or Recentered SAT score of 970 (860 on the old SAT).
4. Prerequisite courses: Prior to beginning nursing courses, the student must have completed BIOL 225, BIOL 227, BIOL 226, BIOL 228, and ENGL 101 with a minimum grade of C and maintained a cumulative grade point average of 2.0.
5. Application for admission to the A.S. in Nursing Program: By February 1 of the year students desire to enroll in nursing courses, they must complete the following:
  - a. Submit to the Department of Nursing an application for admission in the A.S. in Nursing Program.
  - b. Submit a letter of reference from a person able to assess the applicant's potential for success in nursing.
  - c. Meet with the department chair or designee for advisement. Appointment must be scheduled by the student prior to February 1.

#### Bachelor of Science Degree in Nursing

The generic student seeking enrollment in the Bachelor of Science Degree Program in Nursing must meet the requirements for admission as stated in the *College Catalog*. Freshman and sophomore students will be designated as "pre-nursing" students and must be advised by nursing faculty.

Students would be candidates for admission into the nursing program in the spring of their sophomore year upon meeting the following criteria:

1. Eligible to complete the 63 lower division course hours as identified in pre-nursing curriculum prior to matriculation.
2. Completion of NURS 231 Introduction to Nursing.
3. Cumulative grade point average of 2.5; must achieve grade C or above in the following courses: BIOL 225/227, BIOL 226/228, NURS 231.
4. Submit a Department of Nursing Education application for admission.
5. Submit a letter of reference.
6. Meet with the department chair or designee for an advising conference.

## Admission of International Students

To be admitted, the international student must demonstrate proficiency in both written and spoken English. Such proficiency can be established by the successful completion of the Test of

English as a Foreign Language (TOEFL), administered by the Educational Testing Service, Princeton, New Jersey 08540. A score of at least 550 on the paper test or 213 on the computer test is required for admission to Shepherd College. Information concerning this test can be secured through the United States Embassies and Consulates throughout the world or by writing to TOEFL, 1755 Massachusetts Avenue, N.W., Washington, D.C. 20036.

The applicant must file an application for admission, a health form, and an official transcript of all academic credits and grades. This transcript must be sent directly to the Office of Admissions at Shepherd College by the institution the applicant last attended. Scholastic attainment must be equivalent to that of a high school graduate in the United States. Freshman applicants must also submit scores from the Enhanced American College Test (ACT) with a score of 20 or better, or Recentered Scholastic Assessment Test (SAT) scores of 970 (860 on the old SAT) or better. Decisions about admission cannot be made until complete records have been received by Shepherd College and reviewed by the U.S. Office of Education, International Division, Washington, D.C.

Advising for international students is provided in the Office of Student Affairs.

Since no financial assistance is available to international students attending Shepherd College, arrangements for all expenses should be made in the student's native country.

## Admission of Transfer Students

Any applicant for admission to Shepherd College who has attended another institution of collegiate rank will be classified as a transfer student, whether or not credit was earned. **The College does not, under any condition, disregard college or university courses taken or credits earned elsewhere. Failure to report enrollment at another college or university and failure to have transcripts sent to Shepherd is considered as a falsification of the admissions application form; applicants found to be in violation of College policy are subject to disciplinary action.** Credit earned at other accredited colleges and universities will be allowed toward a degree at Shepherd College if applicable. College transfer students are required to have a 2.0 or better overall grade point average on all courses attempted (a grade point average of 2.5 is recommended) and eligibility to return to their former colleges. **A student who is on either academic or social probation at another institution is not eligible for admission to Shepherd College.** Individuals who have been out of college for a period of at least two full academic years (24 months) may be considered for admission on academic probation if their grade point average is less than 2.0; during the period of probation, the individual must meet the regulations of the probation policy in effect at the time of attendance. Applicants who have completed less than 15 semester or 24 quarter hours of course work must submit copies of their high school transcript and Enhanced ACT or Recentered SAT scores in addition to the required college transcripts. Both high school and college credentials will be used in the admissions evaluation. Transcripts received by Shepherd become the property of the College and cannot be returned to the student.

All grades and credits transferred to Shepherd College are posted on the student's permanent record exactly as received from all other colleges with the following proviso: 1) plus and minus signs will be ignored, and 2) D and F grades can be replaced only if earned within the first 60 hours attempted. For admission purposes all grades on the student's transcript(s) will be used in computing the grade point average. Official transcripts must be mailed directly to Shepherd from all colleges which the prospective student has previously attended.

## Credit Hours Transfer Policies

Matriculating students who transfer from a regionally-accredited junior or community college are assigned a maximum of 72 semester hours toward the 128 credit hour minimum for graduation from Shepherd College. In compliance with the West Virginia Higher Education Policy Commission, students who have completed more than 72 hours of course work may select the courses they wish to have evaluated as part of their semester hours of credit counted toward graduation. The total number of credit hours earned will be calculated in the student's overall grade point average. Credits from colleges that do not have regional accreditation are assigned on the basis used by the state university in the state where the nonaccredited college is located.

After enrollment at Shepherd College, a student may not transfer to this institution any courses in major, minor, or teaching fields. Advance permission will be required to take any course at another institution and transfer it to Shepherd College. (See Section V for details.)

Students planning to enter teacher education should be aware that a minimum GPA of 2.5 is required for admission into the professional teacher education program. Students planning to enter elementary education or secondary education also must have a minimum GPA of 2.5 in their respective teaching fields.

Shepherd College has developed transfer articulation agreements with many regional two-year and community colleges. These agreements facilitate the transferring of credits among participating institutions. Students may consult these documents for information on specific course-by-course transfer and are urged to do so early in planning their college programs. These articulation agreements only apply to courses taken prior to the first enrollment at Shepherd College. Thereafter advance permission (green form) is required.

Class standing at Shepherd College is based on the semester or quarter-hours transferable to Shepherd.

## Transfer Articulation Agreements

Articulation agreements have been developed with the following institutions:

Allegheny Community College, Cumberland, Maryland  
 Anne Arundel Community College, Arnold, Maryland  
 Carroll Community College, Westminster, Maryland  
 Catonsville Community College, Catonsville, Maryland  
 Cecil Community College, North East, Maryland  
 College of Southern Maryland, LaPlata, Maryland  
 Chesapeake College, Wye Mills, Maryland  
 Delaware Tech Community College, Delaware  
 Dundalk Community College, Dundalk, Maryland  
 Essex Community College, Baltimore County, Maryland  
 Frederick Community College, Frederick, Maryland  
 Garrett Community College, McHenry, Maryland  
 Hagerstown Community College, Hagerstown, Maryland  
 Harford Community College, Bel Air, Maryland  
 Harrisburg Area Community College, Harrisburg, Pennsylvania  
 Howard Community College, Columbia, Maryland  
 Lord Fairfax Community College, Middletown, Virginia  
 Montgomery College, Rockville, Takoma Park, and Germantown, Maryland  
 Northern Virginia Community College, Annandale, Alexandria, Sterling, Manassas, and Woodbridge, Virginia  
 Parkersburg Center of West Virginia University, Parkersburg, West Virginia  
 Potomac State College, Keyser, West Virginia  
 Prince Georges Community College, Largo, Maryland  
 Southern West Virginia Community College, Logan and Williamson, West Virginia  
 Virginia Community College System, Richmond, Virginia  
 West Virginia Northern Community College, Wheeling and Weirton, West Virginia  
 WOR-WIC Community College, Salisbury, Maryland

There is also a common core articulation for general studies among all West Virginia public institutions of higher education.

Applicants interested in the details of these articulation agreements should contact one of the colleges involved or the Office of Admissions at Shepherd College. Officials of other institutions desiring articulation agreements with Shepherd College should contact the director of admissions at Shepherd.

## Admission of Handicapped Students

In accordance section 504 of the Rehabilitation Act of 1973, and by 45 CFR 84, "Nondiscrimination on Basis of Handicap," Shepherd College is committed to nondiscrimination on the basis of handicap in the areas of employment, program accessibility, admissions, accessibility of physical facilities, treatment of students, academic adjustments, housing, financial aid, employment assistance to students, and in nonacademic services. No otherwise qualified handicapped person shall, on the basis of handicap, be excluded from participation in, be denied the benefits

of, or otherwise be subjected to discrimination under any program sponsored by the College. Some disabilities are considered to be a barrier to completion or admission into the Nursing Education Program.

College officials desire to provide every possible assistance to handicapped students. To do this, however, they must have reasonable notice of the special accommodations they will be asked to provide. Inquiries or requests should be directed to the campus American with Disabilities Act (ADA) coordinator Dr. Howard Seiler, Knutti 114.

## Readmission of Students

An application for admission must be completed by any individual who was not enrolled the semester immediately preceding intended readmission to Shepherd. A health record is valid for five years after original submission. Residence hall applications and deposit checks of \$50 should be submitted after readmission to the institution has been granted if on-campus housing is desired and/or required (see section on Residence Life). Students who have been academically suspended from the College should be sure that they are eligible for readmission prior to the submission of the application form.

Applicants for readmission who have been academically suspended, who have been placed on academic probation, or who have below a 2.0 grade point average will be required to meet with the director of Student Academic Support Services before the Office of Admissions can process the readmission application. The meeting will introduce the student to the varied academic support services and determine through placement testing if the applicant can benefit from these services. Based on the results of these assessments, enrollment in and successful completion of ACFN 096 College Study Skills during the first semester of re-enrollment may be required. Since testing and evaluation of the test results require several days, students should submit readmission applications according to the dates at the beginning of this section of the *Catalog* and schedule the appropriate meeting with the academic support services director.

Applicants for readmission must submit a detailed résumé of their activities (employment, military service) from the time of last enrollment at Shepherd until their planned return to the College. They should also check with the Financial Aid Office if interested in aid to be sure they are making satisfactory academic progress for financial aid.

## Admission of Transient Students

Students who desire to enroll as transient students may do so upon the submission of a letter of good standing mailed directly to the Office of Admissions at Shepherd College from the institution which the student last attended. Also required is the submission of an application for admission at least one month prior to the opening of the semester in which the student decides to enroll.

## Admission of Special Students

Persons may be considered for admission as special students upon completing an application. Special students may enroll in those courses for which they are qualified. If at a later date, special students decide to work toward a degree at Shepherd College, they must submit all documents (transcripts, test scores) required and be admitted as degree candidates. Transcripts may be required to evaluate competencies before enrolling in certain courses. Course work taken at Shepherd College may not be used to raise a grade point average deficiency earned at another institution.

If a student enrolled as a special, non-degree student wishes to change his or her enrollment status to that of a degree-seeking student, he or she needs to complete an admissions application form and a change of degree form (available in the Office of Admissions) and submit them along with the \$30 admissions application fee to the Office of Admissions with all required credentials (transcripts, test scores). Students changing degree status must meet all stated admissions requirements as listed in the *Catalog* at the time the change of degree status is initiated.

## Early Admission Plan

Secondary school students with superior ability and maturity are eligible for admission to Shepherd College after completion of three years of secondary school. They must be endorsed by their high school principal and counselor, have a high school grade point average of 3.5, and scores of 29 or better on the Enhanced American College Test (ACT) or a score of 1270 (1200

on the old SAT) or better on the Recentered Scholastic Assessment Test (SAT). Applicants must be mature enough to make adequate adjustment to college life. Emphasis is placed, therefore, on the high school record, recommendations from high school personnel, and the student's personal interviews with Shepherd College admissions and student affairs staff members. Once admitted, early entrants have the same status as other students; they take regular college programs and are required to meet the usual standards of performance. They are eligible for College scholarships on equal terms with entering high school graduates, but they are not eligible for federal financial aid, which requires high school graduation or the GED. Individuals desiring information about the early admission program should contact the Office of Admissions.

## Early Action Plan

Shepherd College offers an Early Action Plan to students whose first choice of colleges is Shepherd. This plan is designed to reduce the burden of the admissions process for those applicants who are considered highly desirable for admission by the College and who fully intend to matriculate. A student applying for admission under the Early Action Plan should possess high academic qualifications, and have a minimum grade of B (3.0) and Enhanced ACT scores of at least 24 or Recentered SAT scores of at least 1100 (1000 on the old SAT) at the end of the sixth semester of high school. These students must meet all the admissions requirements outlined in the College *Catalog*. Under this plan, a qualified applicant whose complete admissions application and all supporting credentials are on file in the Office of Admissions by November 15 should receive notice of acceptance by December 15. Students interested in applying under the Early Action Plan should write to the Office of Admissions at Shepherd College for further information.

## Delayed Enrollment Plan

Students who are offered admission to the freshman class at Shepherd College may postpone their enrollment for one year. Admitted freshmen who choose this option must submit a letter requesting that their application be reconsidered by January 1 for the fall semester or summer terms, or by October 1 for the spring semester. These students are guaranteed space, except in the engineering and nursing programs, if they satisfy previous admission requirements made as conditions of their original admission. Applicants for admission should submit a detailed résumé of their activities (employment, military service) from the time they left high school until their planned enrollment at Shepherd College. They must have an honorable record in the intervening year. Assurance of future admission does not apply to students who enroll in another college or university during the intervening period; in such cases, it is necessary to consider the student as a transfer applicant based on the course work taken at the other college or university. Students delaying enrollment must complete a new admissions application form to update personal information and their proposed academic program. Students electing the delayed enrollment plan are not guaranteed residence hall housing and must meet established housing application deadlines.

## International Baccalaureate

Shepherd College recognizes the International Baccalaureate (IB) curriculum as a strong pre-college academic program and encourages applicants to complete the requirements for the IB diploma. Advanced standing will be awarded for higher level exams with scores of 5, 6, or 7 to students who present either the IB diploma or individual IB exam scores. Credit is not awarded for standard level exams.

Individual academic departments determine how credit will be awarded for IB exams in a manner similar to the awarding of credit for Advanced Placement exams.

Shepherd College will award credit for higher level examinations as follows:

Art/Design	ART 104 Introduction to Visual Arts (majors) and elective: 6 hours.
Biology	BIOL 101 and 102 General Biological Science and Labs: 8 hours.
Chemistry	CHEM 207, 207L, 209, 209L General Chemistry and Labs I and II: 8 hours.
Computer Science	CIS 211 and 314 Computer Language Concepts and Advanced Computer Language Concepts: 8 hours.

Economics	ECON 205 and 206 Principles of Macroeconomics and Principles of Microeconomics: 6 hours.
English A	ENGL 101 Written English I: 3 hours.
French B	FREN 101 and 102 Elementary French I and II: 6 hours.
Geography	GEOG 101 Principles of World Geography and elective: 6 hours.
German B	GERM 101 and 102 Elementary German I and II: 6 hours.
History/America	HIST 201 and 202 History of the United States I and II: 6 hours.
History/Africa	HIST 320 Sub-Saharan Africa and elective: 6 hours.
History/Europe	HIST 102 and 103 History of Civilization II and III: 6 hours.
Mathematics	MATH 108 and 205 Precalculus and Calculus with Applications: 7 hours
Philosophy	PHIL 101 and 305 Introduction to Philosophy and History of Philosophy: 6 hours.
Physics	PHYS 201, 201L, 202, and 202L College Physics I and II and Labs: 8 hours.
Psychology	PSYC 203 Introduction to Psychology and elective: 6 hours.
Social Anthropology	ANTH 315 Cultural Anthropology and elective: 6 hours.
Spanish B	SPAN 101 and 102 Elementary Spanish I and II: 6 hours.

To receive credit for International Baccalaureate Higher Level examinations, students must have the IB examination results sent to the Office of Admissions at Shepherd College. Academic departments may add or delete credit for these examination if course content or examinations change.

## ADMISSION TO THE COMMUNITY AND TECHNICAL COLLEGE

Any one who has a high school diploma or a GED is eligible for admission to the Community and Technical College. A student may apply for admission to an associate's degree program or to individual courses not directed toward completion of a degree. Admission to the Community and Technical College does not assure a student of acceptance into a specific degree program. Students admitted without ACT or SAT scores must take the ACCUPLACER placement examination prior to registration in math or English courses. Admissions requirements for degree programs are found in Section II of the *Catalog*.

A student must complete an application for admission, pay the required fee, provide high school or GED transcripts and provide transcripts for other colleges. The student must also provide SAT scores, ACT scores, or take the necessary placement exams by the second semester of enrollment. Students who are deficient in specific academic areas may enroll in the Academic Foundations Program.

Students may enroll for courses as special non-degree students. Those who subsequently elect to apply credits earned as special non-degree students to a degree must meet the regular admission requirements.

Students planning to change later to a bachelor's degree program may need to meet additional requirements.

## Policies for the Academic Recovery Program

The Academic Recovery Program for the Community and Technical College is designed for students who would like to transfer to Shepherd College but have a GPA less than 2.0 and are West Virginia residents. The Community and Technical College will conditionally admit a limited number of transfer students with a GPA between 1.5 and 2.0. Students with a GPA of less than 1.5 may be admitted into this pilot program on a case by case basis. Students will be selected for this program by the Academic Recovery Committee.

Each academic recovery student will enter into a written understanding with the Community and Technical College that he/she will fulfill specific academic obligations and restrictions.

## MISCELLANEOUS ADMISSION INFORMATION

### High School Honors Program

The Shepherd College High School Honors Program offers a stimulating experience to outstanding and highly-motivated high school students enrolled in local secondary schools. To enroll in College classes, students must submit an application for admission and a letter of recommendation from the high school principal or guidance counselor.

The High School Honors Program can admit only a limited number of students who meet its standards. Applicants who are completing or have completed their junior year of high school will be screened for ability, interests, initiative, emotional stability, and social maturity.

Students enroll in regular college courses under the same regulations which apply to all undergraduate students registered for credit at Shepherd College. Depending on background, aptitudes, and recommendations from high school personnel, the student may choose a wide variety of college courses. Because a major purpose of this program is to ensure a complete and realistic introduction to college studies, only a limited number of students are admitted to any one section of a course.

Students apply for enrollment in the program at Shepherd College using a special admission application form. Applicants should submit the completed special admission application form to their guidance counselor who will attach the letter of recommendation and forward them to Shepherd College. A copy of the students' high school transcript and Enhanced ACT or Recentered SAT scores should accompany the application for course placement purposes. Officials of Shepherd College must approve the specific courses in which the students enroll.

Credit earned in the High School Honors Program is applicable toward a degree at Shepherd College. The credits are transferable, depending on the policies of the receiving institutions.

Questions concerning the Shepherd College High School Honors Program should be directed to the provost of the Community and Technical College at Shepherd.

### Concurrent Admissions Program (ConAP)

Shepherd College participates with the U.S. Army Recruiting Command in the Concurrent Admissions Program (ConAP), which permits eligible Army enlistees to receive admission to college concurrent with their military enlistment and defer their college enrollment for classes for up to two years after discharge, and matriculate as veterans after they leave active duty. ConAP enlistees receive information and applications about the program from their Army recruiter. After receiving the completed forms from the Army's battalion education specialist, the Office of Admissions will send the enlistee the necessary College admissions applications for completion and return to Shepherd College. Shepherd College will serve as the enlistee's "home college" and will approve, for transfer back to Shepherd, courses from other colleges which may be taken while the enlistee is on active duty. The director of admissions at Shepherd serves as the liaison with the enlistee while in the military and a selected faculty member will serve as the enlistee's advisor.

### Servicemembers Opportunity College

Shepherd College has been designated as an institutional member of Servicemembers Opportunity Colleges (SOC), a group of over 400 colleges and universities providing voluntary post-secondary education to members of the military throughout the world. As an SOC member, Shepherd recognizes the unique nature of the military lifestyle and has committed itself to easing the transfer of relevant course credits, providing flexible academic residency requirements, and crediting learning from appropriate military training and experiences. SOC has been developed jointly by educational representatives of each of the Armed Services, the Office of the Secretary of Defense, and a consortium of 13 leading national higher education associations. It is sponsored by the American Association of State Colleges and Universities (AASCU) and the American Association of Community Colleges (AACC).

### College Credit for Military Service

Students who have completed basic training in military service may be granted a maximum of four semester hours credit, which may be used to satisfy general studies physical education and/or elective requirements. It is the student's responsibility to request this credit and to verify this military

experience to the registrar. If the student was not in the Army or other service branch that has basic training, then Shepherd College will grant the same credit to individuals who present a certified copy of their DD-214 Form after completing a minimum of one year of active military service.

Correspondence work completed at accredited institutions of higher learning cooperating with the Armed Forces Institute is accepted by colleges in West Virginia. The amount of credit allowed by the institution where credit was earned, however, must not exceed 28 semester hours.

## Air Force ROTC

Air Force Reserve Officer Training Corps (AFROTC) is available to Shepherd College students through an agreement with the University of Maryland at College Park. AFROTC courses are scheduled so that students from Shepherd may complete all AFROTC requirements during one morning per week at the College Park campus. In addition, students are eligible to compete for all AFROTC scholarships and flying programs. The four-, three-, and two-year scholarships pay tuition, books, fees, and a \$100 per month subsidy.

After graduation from Shepherd and successful completion of the AFROTC requirements at the University of Maryland, students are commissioned second lieutenants in the Air Force. Students interested in AFROTC may contact:

AFROTC Det 330  
University of Maryland  
Cole Field House, Room 2126  
College Park, MD 20742-4321  
301/314-3242 or 3243

## Policy Regarding Residency Classification of Students for Admission and Fee Purposes

The Board of Directors of the State College System of West Virginia adopted the following regulations governing the residency classification of students for admission and fee purposes at all institutions under its jurisdiction effective July 2, 1990.

### Classification for Admission and Fee Purposes

**1. General:** Students enrolling in a West Virginia public institution of higher education shall be assigned a residency status for admission, tuition, and fee purposes by the institutional officer designated by the president. In determining residency classification, the issue is essentially one of domicile. In general, the domicile of a person is that person's true, fixed, permanent home and place of habitation. The decision shall be based upon information furnished by the student and all other relevant information. The designated officer is authorized to require such written documents, affidavits, verifications, or other evidence as is deemed necessary to establish the domicile of a student. The burden of establishing domicile for admission, tuition, and fee purposes is upon the student.

If there is a question as to domicile, the matter must be brought to the attention of the designated officer at least two weeks prior to the deadline for the payment of tuition and fees. Any student found to have made a false or misleading statement concerning domicile shall be subject to institutional disciplinary action and will be charged the nonresident fees for each academic term theretofore attended.

The previous determination of a student's domiciliary status by one institution is not conclusive or binding when subsequently considered by another institution; however, assuming no change of facts, the prior judgment should be given strong consideration in the interest of consistency. Out-of-state students being assessed resident tuition and fees as a result of reciprocity agreement may not transfer said reciprocity status to another public institution in West Virginia.

**2. Residence Determined by Domicile:** Domicile within the state means adoption of the state as a fixed permanent home and involves personal presence within the state with no intent on the part of the applicant or, in the case of the dependent student, the applicant's parent(s) to return to another state or county. Residing with relatives (other than parent(s)/legal guardian) does not, in and of itself, cause the student to attain domicile in this state for admission or fee payment purposes. West Virginia domicile may be established upon the completion of at least 12 months

of continued presence within the state prior to the date of registration, provided that such 12 months' presence is not primarily for the purpose of attendance at any institution of higher education in West Virginia. Establishment of West Virginia domicile with less than 12 months' presence prior to the date of registration must be supported by evidence of positive and unequivocal action. In determining domicile, institutional officials should give consideration to such factors as the ownership or lease of a permanently-occupied home in West Virginia, full-time employment within the state, paying West Virginia property tax, filing West Virginia income tax returns, registering of motor vehicles in West Virginia, possessing a valid West Virginia driver's license, and marriage to a person already domiciled in West Virginia. Proof of a number of these actions should be considered only as evidence which may be used in determining whether or not a domicile has been established. Factors militating against the establishment of West Virginia domicile might include such considerations as the student not being self-supporting, being claimed as a dependent on federal or state income tax returns or on the parents' health insurance policy if the parents reside out of state, receiving financial assistance from state student aid programs in other states, and leaving the state when school is not in session.

**3. Dependency Status:** A dependent student is one who is listed as a dependent on the federal state income tax return of his or her parent(s) or legal guardian or who receives major financial support from that person. Such a student maintains the same domicile as that of the parent(s) or legal guardian. In the event the parents are divorced or legally separated, the dependent student takes the domicile of the parent with whom he or she lives or to whom he or she has been assigned by court order. However, a dependent student who enrolls and is properly classified as an in-state student maintains that classification as long as the enrollment is continuous and that student does not attain independence and establish domicile in another state.

A nonresident student who becomes independent while a student at an institution of higher education in West Virginia does not, by reason of such independence alone, attain domicile in this state for admission or fee payment purposes.

**4. Change of Residence:** A person who has been classified as an out-of-state student and who seeks resident status in West Virginia must assume the burden of providing conclusive evidence that he or she has established domicile in West Virginia with the intention of making the permanent home in this state. The intent to remain indefinitely in West Virginia is evidenced not only by a person's statements, but also by that person's actions. In making a determination regarding a request for change in residency status, the designated institutional officer shall consider those actions referenced in section two above. The change in classification, if deemed to be warranted, shall be effective for the academic term or semester next following the date of the application for reclassification.

**5. Military:** An individual who is on full-time active military service in another state or a foreign country, or an employee of the federal government, shall be classified as an in-state student for the purpose of payment of tuition and fees, provided that person established a domicile in West Virginia prior to entrance into federal service, entered the federal service from West Virginia, and has at no time while in federal service claimed or established a domicile in another state. Sworn statements attesting to these conditions may be required. The spouse and dependent children of such individuals also shall be classified as in-state students for tuition and fee purposes.

Persons assigned to full-time active military service in West Virginia and residing in the state shall be classified as in-state students for tuition and fee purposes. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

**6. Aliens:** An alien who is in the United States on a resident visa or who has filed a petition for naturalization in the naturalization court, and who has established a bona fide domicile in West Virginia as defined in section two, may be eligible for in-state residence classification, provided that person is in the state for purposes other than to attempt to qualify for residency status as a student. Political refugees admitted into the United States for an indefinite period of time and without restriction on the maintenance of a foreign domicile may be eligible for an in-state classification as defined in section two. Any person holding a student or other temporary visa cannot be classified as an in-state student.

**7. Former Domicile:** A person who was formerly domiciled in the state of West Virginia and who would have been eligible for an in-state residency classification at the time of his/her departure from the state may be immediately eligible for classification as a West Virginia resident

provided such person returns to West Virginia within a one-year period of time and satisfies the conditions of Section 2 regarding proof of domicile and intent to remain permanently in West Virginia.

8. **Appeal Process:** The decision of the designated institutional official charged with the initial determination of residency classification may be appealed in accordance with appropriate procedures established by the president of the institution. At a minimum, an institutional committee on residency appeals will be established to receive and act on appeals of initial residency decisions made by the designated institutional official. The residency appeal procedures also will include provisions for appeal of the decision of the institutional committee on residency appeals to the president of the institution. The appeal shall end at the institutional level.

## How to Contact Offices and Committees Referred to in This Section

• Student Academic Support Services, Shepherd College, P.O. Box 3210, Shepherdstown WV 25443-3210. Telephone: 304/876-5221. E-mail: [hseiler@shepherd.edu](mailto:hseiler@shepherd.edu). URL: [www.shepherd.edu/ctcweb/support.htm](http://www.shepherd.edu/ctcweb/support.htm).

• Admissions and Credits Committee, Chair, c/o Office of the Registrar, Shepherd College, P.O. Box 3210, Shepherdstown WV 25443-3210.

• Office of Admissions, Shepherd College, P.O. Box 3210, Shepherdstown WV 25443-3210. Telephone: 304/876-5212. Fax: 304/876-5165. E-mail: [admoff@shepherd.edu](mailto:admoff@shepherd.edu). URL: [www.shepherd.edu/pub\\_info/admissions.html](http://www.shepherd.edu/pub_info/admissions.html).

• Americans with Disabilities Act Coordinator, Shepherd College, P.O. Box 3210, Shepherdstown WV 25443-3210. Telephone: 304/876-5400.

• Community and Technical College, Shepherd College, P.O. Box 3210, Shepherdstown WV 25443-3210. Telephone: 304/876-5203. E-mail: [pcheckov@shepherd.edu](mailto:pcheckov@shepherd.edu). URL: [www.shepherd.edu/ctcweb](http://www.shepherd.edu/ctcweb).

• Office of Financial Aid, Shepherd College, P.O. Box 3210, Shepherdstown WV 25443-3210. Telephone: 304/876-5470. Fax: 304/876-5238.

• Residence Life Office, Shepherd College, P.O. Box 3210, Shepherdstown WV 25443-3210. Telephone: 304/876-5172. Fax: 304/876-5150. URL: [www.shepherd.edu/rloweb/index.html](http://www.shepherd.edu/rloweb/index.html).

# SECTION III

# STUDENT LIFE

## STUDENT AFFAIRS

The Office of Student Affairs provides a variety of educational and administrative services, programs, and activities to help enrich student life and to support the academic goals of the College. As a critical component of the College, the Office of Student Affairs is committed to the holistic educational development of the students. Student Affairs strives to create positive learning communities inside and outside the classroom where personal development is facilitated culturally, physically, mentally, emotionally, and socially.

The concepts of human growth and development underlie the programs, activities, and services of the Office of Student Affairs. Such services, discussed individually below, include orientation, counseling and career services, residence life, dining service, health services, leadership development, multicultural student affairs, and student activities.

Certain annual traditional events are also coordinated by the student affairs staff. These include Family Day, Shepfest, and Student Recognition Day. Thus, from the time of enrollment through orientation to career assistance following graduation, the student affairs staff provides comprehensive services and assistance to Shepherd students.

### Orientation to College

Shepherd conducts a two-phase orientation program to help students make a smooth transition from high school, home, or work to college. Phase one consists of a two-day summer program which gives new students an opportunity to meet with faculty, discuss their academic program, and schedule classes for the fall semester. Phase two of the program, conducted in the fall, also provides opportunities for academic advisement and is designed to help new students make a smooth adjustment to college life. Because the College feels that orientation is important whether the student is newly graduated from high school, has been a homemaker, or is entering college from the world of work, all new students accepted for admission in the fall semester are required to attend. Shepherd offers non-traditional aged students programming specifically designed to meet their needs. Exceptions to the orientation requirement may be granted for non-resident students who are 25 or older and who carry less than 9 credit hours. Dates for the summer program are announced to newly-admitted students early in the spring. The College also conducts an orientation program in January for new, transfer, or readmitted students.

### Career Development Center

Career planning is a developmental process and must be fostered during the entire period of a student's involvement with the institution and beyond. The primary purpose of the Career Development Center is to aid students in developing, evaluating, and effectively initiating and implementing career plans. The Career Development Center carries out this mission through three separate components: Career Services, Cooperative Education, and the Washington Gateway Program.

Career Services works with students who want to refine their career plans by offering professional, individualized career counseling and assessment. Career Services also maintains a

well-stocked career resource library that includes information on graduate school programs, employment literature, and job opportunities. In addition to these services, Career Services provides assistance with development of credential files, résumés, and other job search skills. Another important function of Career Services is to sponsor career fairs, which bring employers and students together.

Cooperative Education (Co-op) enables students to combine classroom study with real work experiences that relate to their major. The Cooperative Education Office maintains information on co-op and internship opportunities. The co-op staff works closely with students in finding off-campus assignments.

The Washington Gateway is a new concept that enables the College to incorporate the resources of the metropolitan area into its curriculum. Through joint coordination by the Washington Gateway and academic departments, the College offers specialized courses and semesters that are tailored to academic disciplines. These programs permit students to travel into the Washington/Baltimore area; provide the opportunity for internships or co-ops in the metro area; and bring various Washington government leaders, speakers, and lecturers to campus.

The Career Development Center is located on the second floor of the College Center, room 201.

## Residence Life

At Shepherd College, residence hall life is considered an important part of the educational program. Because learning does not stop at the classroom door, the experience of living in a residence hall can play an important role in affecting the development of the whole student. The residence life staff, along with trained student RAs, work together to create a living environment which assists students in furthering their intellectual, personal, emotional, and social growth and development. **Thus, all single, full-time students who are not parents and not commuting less than 60 miles from home, regardless of age, are required to live in a College residence hall. Exceptions to the policy are explained in the *Student Handbook* and *Residence Life Handbook*.**

Activities, programs, and counseling services are planned and carried out for the benefit of residents, providing them with opportunities to learn to live happily and comfortably within groups. A major value of the experience is learning to live without infringing upon the rights of others. To this end, the residence halls have specific standards developed by the staff and residents to assist in group living and citizenship education.

By accepting a room reservation in a residence hall, students agree that they will follow the rules and regulations found in the *Residence Life Handbook* and the *Student Handbook* and will not conduct themselves in any way that will infringe upon the rights and privileges of other individuals or the group.

Rooms are furnished with single beds, chests, desks, and chairs. Students supply linens, pillows, blankets, bedspreads, mattress covers, and accessories to suit their tastes.

The College is not responsible for the personal property of students in a residence hall. Normally, all personal property is removed when a student withdraws, but in unusual circumstances the College will store personal property for two weeks. Any property left two weeks after a student has withdrawn will be discarded.

## Dining Services

The College operates a full-service cafeteria-style Dining Hall located between Kenamond and Turner halls. The Dining Hall offers a large selection of hot entrees, vegetarian and vegan items, salads, and desserts. All residence hall students are required to participate in the board plan. The College also offers the Ram's Den, a made-to-order style retail food service outlet located in the College Center. Students may select from a variety of hot and cold sandwiches, soups, salads, and assorted beverages. Both food service locations are available to residence hall and commuter students. Dining Services also enlists the services of a registered dietician who is available to consult students about their dietary concerns.

## Student Health Services

Student Health Services is located on the ground floor of Gardiner Hall, and services are available to all students. Staffed by certified college health RNs, Health Services offers an integrated approach to address the physical and emotional well-being of students. A local physician is

retained for student care. Hours of operation are Monday through Friday, 8:30 a.m.-4 p.m. Health Service offers basic-level medical care of common ailments such as earaches, mono, strep, bee stings, sprains, and flu-like illnesses. Services are available to all students.

All full-time students as well as resident students must submit a complete health record with the following information. Students with a medical exemption should attach a letter from their physician. Students claiming religious exemptions will need a statement from their religious faith leader.

1. Immunizations
  - a. Date and results of a TB test within one year prior to entrance.
  - b. A tetanus shot within 5-10 years.
  - c. Proof of immunity to measles and rubella with one of the following documents (students born before 1957 are exempt from this requirement):
    - i. Dates of two doses of MMR vaccine, one at age 5 or older.
    - ii. Date and results of a rubella titre (a blood test).
    - iii. Dates and medical verification of having had the disease.
2. Results of a physical examination given within one year prior to entrance.

Expenses incurred by medical care outside Health Services, such as lab work, X-rays, hospitalization, are the responsibility of the student. Health insurance is recommended but is not offered by Health Services. In cases of severe illness, it is advisable that personal physician treat students at home. Special health services are available to veterans at the Veterans Administration Center, Martinsburg, West Virginia.

## Counseling Center

The Counseling Center is located on the ground floor of Gardiner Hall and accessed through the Health Center. The Counseling Center is staffed by a full-time licensed professional counselor and is open from 8:30 a.m.-4:30 p.m., Monday through Friday. Appointments can be scheduled by calling the director of counseling at 304/876-5276.

Free confidential counseling for individuals and groups is available on campus to all students. Referrals to outside agencies for more extensive or comprehensive services are also available; however, Shepherd College will not assume the cost for these outside services.

## Student Community Services

Student Community Services (volunteer office) is located in White Hall 102. This program involves students in various types of volunteer activities working with nonprofit agencies both locally and on a national level. In addition to placing and training student volunteers in agencies in the tri-county area, this office also helps student groups and organizations organize fund-raisers that benefit special groups such as the American Cancer Association, the American Heart Association, Cystic Fibrosis Foundation, Make a Wish Foundation, and St. Jude's Children's Hospital.

## Multicultural Student Affairs

The Office of Multicultural Student Affairs, formerly the Office of Minority Affairs, was established in November 1989 as a department in the Office of Student Affairs. The primary mission of this office is to help prepare all Shepherd College students to live, learn, work, and succeed in a multicultural and multiracial society. To this end, Multicultural Student Affairs administers the Multicultural Leadership Scholarship program, sponsors numerous multicultural and multiethnic educational programs; provide support and guidance to culturally diverse student organizations such as the United Brothers, NAACP, International Student Union, and Allies. Multicultural student Affairs sponsors convocations, lecture series, and programs that promote cultural diversity.

## Commuters

Shepherd welcomes its substantial commuter population, composed of both traditionally-aged and non-traditionally-aged students. The *Commuter Connection* is an e-mail correspondence program whereby commuters are sent electronic updates on a wide range of campus activities from cultural, performance, and sporting events to career fairs, volunteer opportunities, travel

programs, health information, and other important happenings. The *Commuter Connection* also serves as a forum for commuters to voice their concerns to an administrative advocate. The Commuter Board in the Ram's Den is frequently updated to further encourage commuter involvement in campus life. Parking lots of the west and east sides of campus, together, fully accommodate commuter parking needs. Student government and all campus organizations welcome commuter participation.

## PROGRAMS AND ACTIVITIES

### The College Center

A popular social and recreational spot on campus is the College Center. The College Center provides resources and programs which enrich the community life on campus. Through various boards, committees, and staff, the College Center provides cultural, social, and recreational programs aimed at supplementing the campus instructional program.

What specifically does the College Center offer? It is the location of a cafeteria snack bar known as the Ram's Den that offers evening snack and food items. It also has a bookstore and gift shop, numerous recreation areas, a student lounge, several meeting rooms, and a variety of offices.

The recreation rooms include: 1) eight bowling lanes, 2) a large activity room with pool tables, card tables, table tennis, and board games which may be checked out with a valid ID, 3) a ballroom for movies, large meetings, or special events, and 4) several meeting rooms used for study, relaxation, or by recognized organizations for weekly meetings.

The College Center has meeting rooms and numerous offices that are used by recognized campus organizations, including the Student Government Association, the campus Program Board, and various student affairs staff, including the College Center staff.

### Study Abroad Program

Shepherd College seeks to connect students with overseas programs that encourage a sense of exploration and deepen understanding of other cultures, their richness, and diversity. Study abroad can be a transforming experience. Summer and semester length programs make it possible for students to improve their foreign language skills and to build lasting relationships with people around the world. Academic rigor is vital in the study abroad experience. Shepherd only endorses programs at reputable institutions and universities where academic credit can be earned, subject to course approval by Shepherd departments. Students can inquire about study abroad opportunities in the Office of Student Affairs. In addition, academic departments frequently offer short study trips abroad. Information is available from the professors or staff who organize the trips.

At its best, study abroad awakens one to regional and global conflicts and to sources of prosperity. It makes one take notice of the social, political, economic, and environmental landscape of the world. It sharpens historical sensibilities and perpetuates global community. Finally, it is often a key component to comprehensive intellectual development and to a liberal arts education.

### Performing Arts Series at Shepherd (PASS)

The Performing Arts Series at Shepherd (PASS) plans and produces culturally diverse, high quality arts performances, workshops, and events that educate, enlighten, and entertain. PASS is committed to nurturing within all of us who are part of Shepherd's community the sense that each individual's story and each individual's creativity are vital to our society as a whole. We seek to explore who we are, how we have come to be here, the traditions we have brought with us, and the ways in which we influence one another.

PASS's multicultural, interdisciplinary programs complement Shepherd's curriculum and offer opportunities for learning and growth outside the classroom. Through attending our programs, both students and community members are drawn into dialogues and come to a better understanding of themselves and one another.

Some of PASS's internationally acclaimed performances have featured the Acting Company, the St. Petersburg Ballet, Anonymous 4, the Lakota Sioux Dance Theater, Celtic Rhythm Irish

Dance Company, and Aquila Theater Company of London. For information on the current season visit PASS's Web site <[www.shepherd.edu/pub\\_info/pass.html](http://www.shepherd.edu/pub_info/pass.html)>.

## Student Activities Programming

The Program Board (PB) sponsors entertaining, eye-opening events that energize and enrich Shepherd's campus community and student life. From comedians and coffeehouse performers to special events and a current movie series, the PB provides free entertainment for Shepherd students and their families nearly every week. The biggest PB event of the year is Shepfest, the annual April concert featuring major national bands. Past Shepfest acts have included The Roots, Violent Femmes, and Fuel. This is programming by students for students.

Program Board's chair is elected by the student body. The remaining nine executive board members are appointed after review of applications and interviews. Volunteers are always welcome to serve on any of PB's committees: multicultural events, contemporary issues, Shepfest, comedians and club performances, movies, publicity/marketing, and special events. To learn more, visit the PB Web site <[www.shepherd.edu/pbweb](http://www.shepherd.edu/pbweb)> or call 304/876-5326.

## Leadership Conference at Shepherd

For over a decade, the Leadership Conference at Shepherd (LCS) has been bringing students together to develop leadership skills. Sponsored by the Student Life Council, LCS is a two-day professionally-conducted conference planned, organized, and run by students that brings special guest lecturers, performers, community leaders, and folks from all walks of life together with representatives from every campus organization and the student body at large to share ideas on topics ranging from art and creativity to multiculturalism, politics, and science.

LCS challenges students to think beyond college and to develop leadership skills that will serve them well throughout their lifetimes. Featured speakers and performers have included acclaimed Native American musician and composer Bill Miller, alternative medicine's visionary spokesman Patch Adams, singer-songwriter Vance Gilbert, Notre Dame football hero Rudy Ruetigger, actor/musician/political leader Ruben Blades, and former Governor Gaston Caperton. Activities during the conference range from large group sessions with dynamic keynote speakers to small, interactive group workshops as well as a banquet with a special guest performer and scholarship awards.

## Religious Life

Shepherdstown has a variety of churches including Baptist, Episcopal, Lutheran, Methodist, Presbyterian, Reformed, and Roman Catholic. Synagogues and churches of other denominations are located in nearby communities. Various religious groups sponsor recognized campus organizations which offer many opportunities for spiritual fellowship. These organizations sponsor rap sessions, study groups, coffee houses, and other similar activities. Ministers from local churches serve campus students on an informal basis and are available for religious counseling or guidance.

## Student Conduct

The staff at Shepherd College assumes that students enroll with a sincere desire to become better educated individuals and to prepare themselves for useful, productive lives. The aim of the College is to facilitate student development in habits of study, application, self-control, integrity, honesty, and ethical standards by which to live and work. The College affirms that students have certain rights and responsibilities for contributing to their own personal growth and awareness within the framework of the campus community. The College reserves the right to take appropriate action, including separation from the College, for violations of accepted standards. All students are expected to be familiar with and are governed by the policies found in the *Student Handbook*, available in the Office of Student Affairs in the College Center, and other published policies of the College. Resident students are also subject to the policies in the *Residence Life Handbook*, available in the Residence Life Office.

## Student Organizations

Academic Honors Assoc.	House Councils	Program Board
Alliance for Academic Honoraries	Interclass Council	Psi Chi
Allies	Interfraternity Council	Psychology Club
Alpha Kappa Delta	International Student Union	<i>Sans Merci</i>
Alpha Sigma Tau	Intramural Sports Program	Shepherd Educ. Student Assoc.
Art Alliance	Kappa Delta Pi	Shepherd Outdoor Club
Association for Computing Machinery	Kappa Omicron Nu	Shepherd Outreach Services
Band	Living Learning Centers	Shepherd Swing Cats
Christian Student Union	M.E.N.C.	Sigma Alpha Iota
Circle K	Panhellenic	Sigma Pi Epsilon
College Democrats	NAACP	Sigma Sigma Sigma
College Republicans	Phi Alpha Theta	SISTAZ
Debate and Forensics	Phi Epsilon Kappa	Social Work Assoc.
Delta Epsilon Chi	Phi Mu Alpha Sinfonia	Student Nurses Association
Delta Sigma Pi	Phi Sigma Alpha	Tau Kappa Epsilon
Delta Zeta	Phi Sigma Kappa	United Brothers of SC
Environmental Organization	Phi Sigma Sigma	Vocal Soloists of SC
Family and Consumer Sciences	<i>The Picket</i>	Women's Caucus
	Pi Kappa Delta	WSHC

## Identification Cards

The RamblerCard is Shepherd College's official student ID. All students are furnished with a RamblerCard. Students are required to carry this card at all times. The RamblerCard provides secure stored value for purchases at properly equipped vending machines, copiers, printers, and other locations on and off campus including the Bookstore, Dining Hall, and Ram's Den. It also allows you to access your chosen meal plan. When student fees are paid, the RamblerCard also provides access to student services and activities like sporting events and the Wellness Center. The RamblerCard is the property of Shepherd College, is nontransferable, and must be presented to college officials upon request. Lost/stolen cards must be reported immediately and may be replaced by paying a \$25 replacement fee.

# SECTION IV

# EXPENSES AND FINANCIAL ASSISTANCE

## TUITION AND FEES

### Payment

The West Virginia Higher Education Policy Commission regulations require the College to operate strictly on a cash basis with all payments and obligations being collected in advance. All tuition and fees must be collected in full for each semester on enrollment (registration) day.

If payment is made by check, registration will be considered incomplete until the check covering the required fees has cleared the bank on which it is written. The cashier will accept cash, money orders, or approved personal checks written for the exact amount of the obligation. All checks must be payable to Shepherd College and third-party checks will not be accepted. A student's registration may be cancelled when payment is made by a check which is dishonored by the bank. If the returned check is in payment of tuition and fees, the business office is required to declare the fees unpaid and registration cancelled. The return of a check for any reason constitutes late registration, and the applicable late-registration fee shall be assessed. In such case the student may be reinstated upon redemption of the unpaid check, payment of the \$10 returned check handling charge, and payment of the applicable late fee of \$25. The returned check fee of \$10 will be collected for each check returned unpaid by the bank upon which it is drawn, unless the drawer obtains an admission of error from the bank.

All student charges are payable at the time of registration for each semester. Students in debt to the College from a previous semester or term will not be permitted to enroll until all obligations are paid. Any outstanding and unpaid financial obligation to the College can result in withholding the student's grades, transcript of credits, diploma, and official reports. Students will not be permitted to attend classes until registration has been completed.

If a student has borrowed a short-term loan or has had any other outstanding financial obligation with Shepherd College and has defaulted, i.e., his or her account has been referred to an attorney, the magistrate's court, or a collection agent, the student will not be eligible to borrow short-term loans in the future.

Student employees will be required to pay tuition and fees at the same time as other students. The student employee will receive monthly paychecks from the State of West Virginia for work performed during the previous month. All fees and expenses are subject to change without prior notice.

### Enrollment Fees Per Semester 2001-2002

West Virginia Students Enrolled in the 4-year Program on Main Campus

Hours Enrolled	Enrollment Fee	Hours Enrolled	Enrollment Fee
12 Hours or more (full-time)	1,304.00	6 Hours	654.00
11 Hours	1,199.00	5 Hours	545.00
10 Hours	1,090.00	4 Hours	436.00
9 Hours	981.00	3 Hours	327.00
8 Hours	872.00	2 Hours	218.00
7 Hours	763.00	1 Hour	109.00

**Out-of-State Students Enrolled in the 4-year Program on Main Campus**

12 Hours or more (full-time)	3,147.00	6 Hours	1,572.00
11 Hours	2,882.00	5 Hours	1,310.00
10 Hours	2,620.00	4 Hours	1,048.00
9 Hours	2,358.00	3 Hours	786.00
8 Hours	2,096.00	2 Hours	524.00
7 Hours	1,834.00	1 Hour	262.00

**West Virginia Students Enrolled in the 2-year Program on Main Campus**

12 Hours or more (full-time)	1,254.00	6 Hours	624.00
11 Hours	1,144.00	5 Hours	520.00
10 Hours	1,040.00	4 Hours	416.00
9 Hours	936.00	3 Hours	312.00
8 Hours	832.00	2 Hours	208.00
7 Hours	728.00	1 Hour	104.00

**Out-of-State Students Enrolled in the 2-year Program on Main Campus**

12 Hours or more (full-time)	2,969.00	6 Hours	1,482.00
11 Hours	2,717.00	5 Hours	1,235.00
10 Hours	2,470.00	4 Hours	988.00
9 Hours	2,223.00	3 Hours	741.00
8 Hours	1,976.00	2 Hours	494.00
7 Hours	1,729.00	1 Hour	247.00

**West Virginia Students Enrolled in South Branch****(Counties of Grant, Hampshire, Hardy, Mineral, and Pendleton)**

12 Hours or more (full-time)	995.00	6 Hours	498.00
11 Hours	913.00	5 Hours	415.00
10 Hours	830.00	4 Hours	332.00
9 Hours	747.00	3 Hours	249.00
8 Hours	664.00	2 Hours	166.00
7 Hours	581.00	1 Hour	83.00

**Out-of-State Students Enrolled in South Branch****(Counties of Grant, Hampshire, Hardy, Mineral, and Pendleton)**

12 Hours or more (full-time)	2,710.00	6 Hours	1,356.00
11 Hours	2,486.00	5 Hours	1,130.00
10 Hours	2,260.00	4 Hours	904.00
9 Hours	2,034.00	3 Hours	678.00
8 Hours	1,808.00	2 Hours	452.00
7 Hours	1,582.00	1 Hour	226.00

**West Virginia Students Enrolled at the Martinsburg Campus Community and Technical College**

12 Hours or more (full-time)	1,097.00	6 Hours	546.00
11 Hours	1,001.00	5 Hours	455.00
10 Hours	910.00	4 Hours	364.00
9 Hours	819.00	3 Hours	273.00
8 Hours	728.00	2 Hours	182.00
7 Hours	637.00	1 Hour	91.00

**Out-of-State Students Enrolled at the Martinsburg Campus Community and Technical College**

12 Hours or more (full-time)	2,812.00	6 Hours	1,404.00
11 Hours	2,574.00	5 Hours	1,170.00
10 Hours	2,340.00	4 Hours	936.00
9 Hours	2,106.00	3 Hours	702.00
8 Hours	1,872.00	2 Hours	468.00
7 Hours	1,638.00	1 Hour	234.00

Rates are subject to change and approval of the West Virginia Higher Education Policy Commission.

Audit Fees Per Semester

Enrollment fees for students enrolled in courses for audit (without credit) are the same as if credit were given.

Extracurricular Fees

Students enrolled for less than 7 credit hours have the option of paying the student activity and/or athletic fees in full and participating in these institutional programs. The basic charges are \$99 for the student activity co-curricular recreation fee and \$105 for the athletic fee per semester, respectively.

Explanation as to Use of Enrollment Fees

	West Virginia Students (Full-Time Rate)	Out-of-State Students (Full-Time Rate)
Tuition Fee: Restricted for statewide capital improvement purposes by West Virginia Statute.	\$125.00	\$400.00
Registration Fee: Restricted for statewide capital improvement purposes by West Virginia Statute.	50.00	250.00
Higher Education Resource Fee: Restricted for certain general operating purposes by West Virginia Statute.	350.00	825.00
Faculty Improvement Fee: Restricted to supplement salaries for faculty by West Virginia Statute.	45.00	130.00
Intercollegiate Athletic Fee: Restricted to defray expenses associated with the College's intercollegiate athletic program.	105.00	105.00
Student Activity Fee: Restricted to defray expenses associated with the College's student activity programs with recommendations from the Student Government Association.	32.00	32.00
Technology Fee: Restricted to defray expenses for the development of college technology.	66.00	66.00
Co-Curricular Fee: Utilized to defray expenses associated with organized educational activities related to instructional programs.	32.00	32.00
Recreation Fee: Provide comprehensive recreation program for general student body.	35.00	35.00
Student Union Fee: Restricted to defray building and other expenses associated with the Shepherd College Center.	49.00	49.00
Academic Improvement Fee: Unrestricted, generally for improvement in academic quality.	45.00	45.00
College Operation Fee: Unrestricted for general operating purposes.	350.00	1,158.00
Medical Fee: Restricted to defray expenses associated with the College's Health Center	20.00	20.00
	<hr/>	<hr/>
TOTAL	\$1,304.00	\$3,147.00

## Refund Policy

Students who withdraw in accordance with College procedures may receive a refund of tuition and fees in accordance with the schedules outlined below. The refund calculation is based on the amount paid toward tuition and fees. (No refunds on **partial withdrawals**.) Refunds are determined from the first day of the school term, which officially begins with orientation and registration days. The official withdrawal date is certified by the registrar. Refund checks are issued through the State Treasury, and receipt of a refund may take up to six weeks depending upon the date of withdrawal.

### Regular Session

During first and second weeks .....	90%
During third and fourth weeks .....	70%
During fifth and sixth weeks .....	50%
Beginning with seventh week .....	No Refund

### Summer Terms

During first, second, and third class days .....	90%
During fourth, fifth, and sixth class days .....	70%
During seventh and eight class days .....	50%
Beginning ninth class day .....	No Refund

## Special Fees

Application for Graduation .....	\$35.00
Admission Application Fee (nonrefundable) .....	30.00
Diploma Replacement .....	20.00
Identification Card Replacement .....	25.00
Late Registration or Late Payment .....	25.00
Orientation .....	60.00
Parking—per year, per vehicle (Day) .....	20.00
Regents Bachelor of Arts (RBA) Evaluations .....	200.00
Returned Check Handling .....	10.00
Special Examination per credit hour .....	25.00
Transcripts—after first transcript .....	5.00
Emergency Transcript .....	15.00
Enrollment Deposit (nonrefundable) .....	100.00
Applied Music Fee (per ½ credit hour) .....	140.00
Science Lab Fee (per course) .....	20.00
Art Studio Fee (per course) .....	30.00
High School Student Course Fee .....	43.00
Nursing Lab Fee (per clinical course) .....	20.00

## Reduced Tuition and Fee Program for WV Residents who are at Least Sixty-five Years of Age

- To be eligible for this program the applicant must fill out the application/registration form completely and chose one of two options:
  - register under this program for all classes for credit.
  - register under this program for all classes for noncredit.
 (A student can not mix these two options or mix this program with regular tuition course registration.)
- A student eligible for this plan may only register in the College Center Ballroom during the late registration add/drop period in a section with at least two openings at the time of registration and with the written consent of the Department Chair.
- The total tuition and standard fees for the credit option will be 50 percent of the normal rates [using the South Branch Rates] charged to state residents by Shepherd College.

4. The total tuition and standard fees for the noncredit option will be \$12.50 per credit hour.
5. Students under this plan will be expected to pay full charges for special fees, including laboratory fees, that are required of all other students. Such students are subject to regular parking rules and fees.
6. No late fee will be charged.
7. In lieu of a grade, an AU will be entered for courses in the noncredit option.
8. Students may withdraw according to established dates.
9. Must pay at time of registration (in the Cashier's Office) to avoid being dropped for nonpayment.
10. The standard refund policy applies, as do all other college policies not specifically addressed herein.
11. All College academic policies apply.
12. Students registered under this program can not preregister for the next term.

## ROOM AND BOARD

### Payment

Room and board charges must be paid in full at the time of registration. Private room rentals are subject to room availability and authorization of dean of student affairs. Private room cost is one and one-half times the double occupancy rate. Once a room has been occupied, the student is liable for rent for the entire semester or summer term. In accordance with the residence hall contract, no room rent will be refunded when a student withdraws from college. Students absent from campus seven or more consecutive days because of illness or other excused reason will not be charged for meals, but no deduction will be made from room rental during the absence. Board payment will be refunded four to six weeks following the date of withdrawal from the College. All room deposits and board refunds must be authorized by the dean of student affairs.

For new freshman, transfers, and continuing students, notice of cancellation of room reservation must be received in the Office of Student Affairs by May 31 for the fall semester or by December 15 for the spring semester. Failure to meet this deadline will result in forfeiture of the room deposit.

### Room and Board Rates Regular Session 2001-2002 (per semester)

Gardiner, Kenamond, Turner, Miller, Shaw, and Thatcher Halls (room )	\$1,081.00
Burkhart, Moler, Yost, Lurry, Martin, and Boteler Halls (room)	\$1,254.00
Board	\$1,146.00
Room Damage Deposit Traditional Halls (Refundable)	\$50.00
Room Damage Deposit West Woods (Refundable)	\$100.00

### Room Rates Summer Terms 2001 (per term)

Miller (room only)	\$310.00
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Rates are subject to change. Food service is generally not available during summer session. Meals may be purchased on a casual basis in the College Center.

### Educational Costs Payable at Registration (per semester)

	West Virginia Students (Full-Time Rate)	Out-of-State Students (Full-Time Rate)
Tuition and Fees	1,304.00	3,147.00
Room and Board*	2,400.00	2,400.00
Total	\$3,704.00	\$5,547.00

\*Room and board rates used are the higher of the College's room and board costs. The cost will vary according to the residence hall assigned.

In addition to the costs listed above, students should expect books and supplies expenses of approximately \$350, personal expenses of \$650, and transportation expenses of \$500 per semester. These costs are only estimates and will vary among students. More detailed information is available through the Office of Financial Aid, Gardiner Hall.

## SCHOLARSHIPS AND STUDENT FINANCIAL AID

The Office of Financial Aid is located in Gardiner Hall. To reach the Office of Financial Aid by phone, please call 304/876-5470 or 888/603-RAIL or visit the Web <[www.shepherd.edu/faoweb/](http://www.shepherd.edu/faoweb/)>.

The Office of Financial Aid at Shepherd College is committed to assisting students (and their parents) in meeting the cost of a college education. Financial assistance is available on the basis of scholastic achievement, special talents and abilities, and/or financial need. Awards are given for a period of one academic year which begins in August and students must apply for financial aid and/or scholarships each year, except for those which have automatic renewal criteria.

The following sections describe guidelines for application, programs, responsibilities of students and/or parents, and deadlines. More detailed information is available from the Office of Financial Aid.

### Application Process

Any student who wishes to apply for federal and/or state financial assistance must be admitted to the College in a degree program and submit the Free Application for Federal Student Aid (FAFSA). Scholarship only applicants are encouraged but not required to submit the FAFSA, but must meet the February 1 priority admission application date. The financial aid processing year begins on July 1 and ends on June 30 of the following year. Students are urged to begin the application process as early as possible after January 1 of each year for the next academic year..

The Department of Education randomly selects 30 percent of all students who submit a FAFSA for a process called verification. Students selected will be sent a verification form by the Office of Financial Aid and will be notified in writing of required documentation, which will include signed copies of student and parent tax returns (for dependent students).

Any student with special circumstances, such as change in income, extraordinary medical/dental expenses, divorce or separation, or other situations where the FAFSA would not reflect the student status should write a letter to the Office of Financial Aid to review his/her circumstances.

Each student who indicates an interest in student loans on the FAFSA is automatically packaged for the amount of student loan for which he/she is eligible after grants, scholarship, and work-study are awarded. After the loan is accepted, promissory notes are mailed to the student. The student must provide two references and a legible signature on the promissory note and return one copy to the Office of Financial Aid before any loan monies are disbursed to the student's account.

### Scholarship Applicants

Scholarships will be awarded to those incoming students with the highest combination of GPA and ACT or converted SAT scores who meet the priority admissions application date of February 1.

Scholarships and/or tuition waivers are also available from the areas of art, music, athletics, and multicultural leadership. Those awards are made by the individual area and most require separate application and eligibility. Students should contact those departments separately if interested.

Note: No student may receive both a tuition waiver and a West Virginia Higher Education Grant. Both of these awards pay only tuition and fees; therefore, a student may receive only one, usually the greater amount.

### Shepherd College Scholars Program

The Shepherd College Scholars Program addresses the scholarship needs of Shepherd College students by providing privately-funded financial support to:

- increase the number of West Virginia students attending college;
- encourage more West Virginians to attend college in the state;
- attract students from the College's regional service area, both in state and out of state;

- attract a student body that is culturally diverse; and
- attract the best of these students to Shepherd College.
- attract top level scholars to the Honors Program.

Each year the Shepherd Scholars Program provides over 350 scholarships and awards with a total value in excess of \$600,000. These privately-funded scholarships are made available through the Shepherd College Foundation and the Shepherd College Alumni Association. The College also makes available a limited number of tuition and fee waivers and other types of financial aid grants and loans. Whenever possible, a student applying for financial aid will be accommodated so that no student will be denied a Shepherd College education.

All deadlines indicate priority admissions application date. Merit scholarship and non-need based awards for incoming students are made beginning in mid-February of each academic year. Qualified students are encouraged to apply early.

## Shepherd College Foundation Scholarships

The Shepherd College Foundation Scholarships give the highest level of financial support to students who demonstrate extraordinary academic achievement and leadership potential. The Foundation Scholarships are funded by gifts from the Ruby Clyde McCormick estate and the Ralph and Margaret Burkhart estate.

Four incoming students are selected as Foundation Scholars each year, with at least two of these students chosen from the Honors Program. In addition to academic achievement and leadership potential, high school and community involvement are considered in selection decisions. Interviews with candidates are conducted. Applicants to the Honors Program receive top consideration in the selection process.

The candidates must have maintained a minimum of a 3.5 grade point average in high school and have either a 28 composite ACT or R1270 SAT score. The annual value of each Foundation Scholarship is \$5,000 and covers the cost of tuition, fees, and other expenses. Special fees set by departments of the College are the responsibility of the student.

The scholarship is renewable with a 3.5 GPA for up to 128 semester hours or eight semesters, except for those academic programs that require more than 128 hours of course work. Students in those programs may apply for an exemption. APPLICATION DEADLINE: FEBRUARY 1. NOTIFICATION: BEGINNING FEBRUARY 15.

## Shepherd College Alumni Association Scholarships

The Shepherd College Alumni Association Scholarships, made available by gifts from the Alumni Association, provide financial support to students who demonstrate extraordinary academic achievement and leadership potential.

Six semifinalists are nominated from which four students plus two alternates are chosen. High school and community involvement are considered in selection decisions, in addition to academic achievement and leadership potential. The selection committee consists of representatives from the Alumni Association, the Honors Program, and the Office of Financial Aid.

The nominees must have maintained a minimum of a 3.5 grade point average in high school and have a 28 composite ACT or R1270 SAT score.

Two \$2,000 Alumni Association Scholarships are awarded to West Virginians; two \$4,000 scholarships are awarded to out-of-state residents. The award is applied to the cost of tuition and fees. Special fees set by departments of the College are the responsibility of the student.

The Scholarship is renewable, with a 3.5 GPA, for up to 128 semester hours or eight semesters, except for those academic programs that require more than 128 hours of course work. Students in those programs may apply for an exemption. APPLICATION DEADLINE: FEBRUARY 1. NOTIFICATION: BEGINNING FEBRUARY 15.

## Presidential Scholarships

To be eligible for consideration for a Presidential Scholarship, a student must have maintained a minimum 3.5 grade point average and have either a 26 composite enhanced ACT or R1200 combined SAT score. Awards are made to applicants with the highest achievement based on grade point average, test score data, and the quality of academic program completed. Thirty-two Presidential Scholarships are awarded each year.

Presidential Scholarships are funded by the Shepherd College Foundation from endowment gifts made by individuals, corporations, and foundations. Some of the Presidential Scholarships may consider financial need as part of the selection criteria, but financial need is not the only criteria. The potential for academic excellence is the primary criteria for selection. This scholarship is available to both residents and non-residents of West Virginia.

The Presidential Scholarship is \$1,500 per academic year. It is awarded for up to eight semesters or a bachelor's degree, whichever comes first. Scholarships are renewable if the student maintains a 3.0 GPA as a freshman and a 3.25 thereafter.

Need-based awards require filing of the Free Application for Federal Student Assistance (FAFSA) form by March 1, in addition to applying for admission prior to February 1.

## Valedictorian and Salutatorian Scholarships

One Valedictorian Scholar and one Salutatorian Scholar are nominated from each accredited West Virginia high school. These scholarships are awarded to official valedictorians and salutatorians only. These students are chosen by the high school principal, and each school follows its own selection criteria.

If a high school selects more than one official valedictorian, and the first person selected elects not to attend Shepherd College, this scholarship can be awarded to another official valedictorian from the same high school. The same is true for each salutatorian.

Each scholarship covers tuition and fees and is renewable with a 3.0 GPA as a freshman and a 3.25 thereafter for up to 128 semester hours or eight semesters, except for those academic programs that require more than 128 hours of course work. Special fees set by departments of the College are the responsibility of the student. Students in those programs may apply for an exemption. The Valedictorian and Salutatorian Scholarships are funded by College funds. Application deadline: February 1. Notification: June 15.

## Governor's Honors Academy Scholarships

Each high school student who is a graduate of the Governor's Honors Academy and who elects to attend Shepherd College is eligible to receive a Governor's Honors Academy Scholarship. The scholarship is awarded to West Virginia residents only.

To be eligible for the Governor's Honors Academy Scholarship at Shepherd College, a minimum 3.5 high school grade point average (unweighted) and a 26 composite enhanced ACT or R1200 combined SAT are required.

The Governor's Honors Academy Scholarship is equivalent to an in-state undergraduate tuition waiver each academic year, plus a cash award to cover activity fees. It is renewable with a 3.0 GPA as a freshman and a 3.25 thereafter for up to 128 semester hours or eight semesters, except for those academic programs that require more than 128 hours of course work. Students in those programs may apply for an exemption. APPLICATION DEADLINE: FEBRUARY 1. NOTIFICATION: BEGINNING FEBRUARY 15.

## Eligibility

If a student is eligible for more than one scholarship from Shepherd College, the student will be awarded the scholarship with the highest dollar value.

To retain scholarships for subsequent years, all scholars are required to meet minimum specific cumulative grade point averages and to complete a minimum of 24 semester hours.

## Establishing an Endowed Scholarship

The Scholars Program is funded primarily by private monies provided by donations to the Shepherd College Foundation and the College's Alumni Association. Persons interested in establishing an endowed scholarship fund under the Shepherd College Scholars Program should contact the Shepherd College Foundation at 304/876-5391 or 800/344-5231, ext. 5391.

For further information about the Shepherd College Scholars Program, contact: Office of Financial Aid, P.O. Box 3210, Shepherd College, Shepherdstown, West Virginia 25443-3210, 304/876-5470 or 800/344-5231, ext. 5470.

## Federal and State Grant Programs

**Federal Pell Grant:** A federal grant (does not have to be paid back) based on income, family size, and other factors as determined by filing the FAFSA. It is for first time undergraduate students only. The maximum award for 2001-2001 is \$3,750 and Pell Grants are available for part-time attendance.

**Federal SEOG:** A federal grant administered to students demonstrating exceptional need. Award levels are determined by individual schools.

**West Virginia Grant Program:** A state grant program administered by the Higher Education Policy Commission. Awards are to West Virginia residents and vary by institution. The grant currently pays 70 percent of tuition and fees at Shepherd. It is a need-based program and the FAFSA must be filed before March 1.

**Higher Education Adult Part-time Student Grant (HEAPS):** A state grant for part-time adults (at least two years beyond high school graduation or GED) in a degree, diploma, or certificate program. The award amount is determined by individual schools.

## Student Employment

Work opportunities for students are offered in almost all areas of the College community. Students interested in student employment must submit the Free Application for Federal Student Aid (FAFSA). Work study funds are limited and are awarded to the first students meeting all application and need requirements. Only students with financial need as determined by the FAFSA combined with the financial aid budget may receive Federal Work Study.

Regular student employment is available in some departments for students who do not qualify for work study. Students interested in working for any department should contact the Office of Financial Aid for information.

Both Federal Work Study and regular student employment positions pay above the federal minimum wage per hour; some positions require special skills and are paid accordingly. Student work earnings will be paid by check twice each month with a valid student identification card at the Business Office. The student may be required to endorse his/her paycheck to the College if a balance remains on the account.

## Student and Parent Loans

The Office of Financial Aid at Shepherd College processes student and parent loans through the William D. Ford Direct Loan Program funded by the Department of Education.

Students must be enrolled in a minimum of six credit hours to qualify for a Direct Loan. Federal regulations require that a three percent origination fee, based on the loan amount, be deducted from every Direct Subsidized and Direct Unsubsidized Loan processed. The percentage is four percent for parent loans.

## Federal Direct Loans

Any student indicating his/her interest in loans either on the FAFSA or by contacting the Office of Financial Aid is processed for the amount of student loan for which he/she is eligible. Any student who wants a lower amount need only indicate that amount on the award letter when the loan is accepted.

The amount any student may borrow each academic year is based on:

- 1) Grade level
- 2) Length of academic program
- 3) Dependent or independent status

Listed below are maximum amounts per year and cumulative maximum amounts a student may borrow under the Direct Loan Program as an undergraduate.

Grade Level	Dependent	Independent
Freshman	\$2,625	\$6,625
Sophomore	\$3,500	\$7,500
Junior	\$5,500	\$10,500
Senior	\$5,500	\$10,500
Cumulative	\$23,000	\$46,000

The amount and type of loan a student may receive varies by his/her total cost of education and the amount of other financial aid received. Any student borrowing under the Direct Loan Program for the first time is required to complete an entrance interview. This may be done in the Financial Aid Office or on-line. Grade level for transfer students for loan processing is determined based on the total number of hours passed at Shepherd College.

After the first student loan is processed, the student will receive a promissory note. The promissory note must be completed with two complete references and a valid (clear, readable first and last name) signature. The completed promissory note must be returned to the Office of Financial Aid before any loan monies will be disbursed to the student's account. All loan monies are applied to any outstanding obligations to the College before the student receives a refund.

## Direct Parent Loan for Undergraduate Students (PLUS)

Applications for the Parent Loan for Undergraduate Students (PLUS) are available in the Office of Financial Aid. Parent loans are processed based on amount requested and the student's cost of education. A credit check by the Federal Loan Servicer is required for processing.

## Federal Perkins Loans

The Federal Perkins Loan Program (formerly National Direct Student Loan) is administered at the campus level and awarded based on availability of funds. This loan program offers up to \$1,500 per year to needy students and is awarded to early applicants until funds are exhausted.

## Alternative Loans

Other loans may be available to students with demonstrated need or special situations. These are made by outside lenders such as SallieMae and Citi Assist.

## Loan Repayment Information

William D. Ford Direct Loan funds do not have to be repaid until six months after the student graduates or ceases attending on at least a half-time basis. Any student who drops below six hours of enrollment must begin repaying his/her loan six months from that time. Only one six month grace period is granted to each student.

The repayment process for parent loans begins within 60 days after the last disbursement for the year, usually in March if the loan is for two semesters.

Repayment for the Federal Perkins Loan begins nine months after graduation or when the student ceases attending on at least a half-time basis. Again, only one nine-month grace period is permitted for each student.

Students utilizing loan funds to assist with their education should be aware that borrowing under both the Direct Loan Program and the Federal Perkins Loan Program will require two minimum payments per month after graduation. Current minimum repayment amounts are \$50 depending on the repayment plan. Several repayment plans exist for all loan programs.

## Other Types of Assistance

### Veteran's Re-Education Act

Eligibility for funding by the Veteran's Re-Education Act is determined by the Department of Veterans Affairs, and awards are given to West Virginia residents who have exhausted all other veteran's benefits. Applications may be obtained from the Office of Financial Aid.

### **Military and Veterans Administration Education Assistance**

The Veterans Administration administers a number of programs for veterans and service personnel seeking assistance for education and/or training. Please contact your local Veterans Administration Office to inquire about available assistance.

### **Vocational Rehabilitation**

Students with physical or learning disabilities may be eligible for assistance with education expenses through their state department of vocational rehabilitation. Students should contact local offices to inquire about programs available.

### **Academic Common Market Options for Out-of-State Students**

If a student comes in under the Common Market and has been certified by the corresponding state agencies as a bona fide resident of Maryland or Virginia or any other state with which Shepherd may have a Common Market agreement, then he/she will retain that Common Market status providing that he/she remains in the program for which he/she was certified and providing he/she maintains continuous enrollment at Shepherd College. This status will hold even if the student's legal or permanent residence changes to another state.

Further information and applications forms may be obtained for the photography/computer imagery program from Rick Bruner (304/876-5372); for the recreation and leisure studies program from Ernie McCook (304/876-5442) and for the resource management option in the environmental studies program from Don Henry (304/876-5106) or from the Admissions Office. There is also a reciprocity agreement for graduates of Frederick Community College and Hagerstown Community College. For further details, contact the Admissions Office.

A Common Market student must show steady progress in taking courses specific to the allowed program. If in the judgment of the registrar the student has not made such progress, based on the Shepherd College Advisor's Handbook, the status will be changed to out-of-state. If a Common Market student stays out a year, he/she will have to reapply to Shepherd College and must resubmit an application for Common Market status.

## **Disbursements/Refunds**

### **Disbursement of Funds**

Financial aid is awarded for the full academic year; half is available for the fall semester and half for the spring semester. Student payment for tuition and fees, room and board, and books and supplies is due prior to the start of each semester. Students receiving financial aid to assist with these expenses will have that aid available as a credit toward institutional charges. Purchase of books and supplies at the College Bookstore may be billed directly to the student account if the student has a credit balance.

### **Refund of Excess Financial Aid**

All financial aid, including loans, is applied to the student account to cover institutional costs. No refund is given to the student until all obligations to the College are met. All Title IV funds awarded (Federal Pell Grant, Federal SEOG, Direct Loans, Federal Perkins Loan, and Federal Work Study) are refundable according to program regulations. Refund checks for excess financial aid are normally available at the Business Office five days prior to the first day of classes and on a weekly basis thereafter.

### **Refunds/Returns Due to Withdrawal**

Students receiving financial aid funds who withdraw during the semester are subject to institutional and federal refund/return policies. No monies will be refunded to withdrawing students until institutional and federal return requirements are met. In most cases, any refund generated due to a withdrawal by a student receiving financial aid will be returned to an aid program. A student withdrawing who has received any type of tuition waiver will have that waiver adjusted to the actual amount of tuition and fees charged. The Return of Title IV Funds policy, as required by federal regulations, allows the student to earn a percentage of aid based on the number of days attended in the semester. Title IV funds are fully earned when 60 percent of the semester is completed. The school portion of the refund is returned by the school and the

student may owe up to one-half of grant money awarded. A portion of the loan may be repaid to the Direct Loan Program by the Office of Financial Aid. The balance of the loan is the student's responsibility. As a result of totally withdrawing from school before the 60 percent period ends, a student may owe money to Shepherd College. More information is available from the Office of Financial Aid.

## Satisfactory Academic Progress Policy

Revised May 2000

The Policy for Satisfactory Academic Progress is effective as of May 2000 and supersedes any previous policy. Any student receiving Title IV financial aid is required to maintain satisfactory academic progress according to The Compilation of Financial Aid Regulations (34 CFR, through 12/31/95 as published by the U.S. Department of Education, section 668.34).

Every student is required to complete a certain number of hours attempted to show that he/she is progressing towards a degree in his/her program of study. Each student must also maintain a grade point average consistent with the regulations governing satisfactory academic progress.

Satisfactory academic progress is required for students to receive financial aid in any of the following programs: Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal Work-Study, Federal Perkins Loan, Federal Direct Loan or Parent Loan for Undergraduate Students (PLUS), Federal Student Nursing Loan, and State Grant Programs including the West Virginia Higher Education Grant Program.

Students must satisfy both grade point and attempted hours standards for progress toward a degree:

### Standards Measured by Grade Point Average

- 1) All bachelor's degree students must maintain a minimum of 2.0 GPA as of their 25th attempted hour of course work.
- 2) All associate's degree students must maintain a minimum of 2.0 GPA as of their 25th attempted hour of course work.
- 3) Any student admitted or readmitted on academic probation who does not meet grade point average standards may appeal to the Scholarship and Financial Aid Committee.

### Standards Measured by Hours Attempted

- 1) Any student in a program leading to a bachelor's degree must complete his/her program within 175 attempted hours of course work.
- 2) Any student in a program leading to an associate's degree must complete his/her program within 96 attempted hours of course work.
- 3) As a student progresses through his/her program, he/she must pass 70 percent of all hours attempted.
- 4) Attempted hours for courses with a grade of failure (F), incomplete (I), incomplete/failure (IF), withdrawals (W), or repeat (R) are counted as hours attempted and combined with all passing grades in determining progress. The committee strongly recommends that students limit their withdrawals from classes.

## General Information

- 1) All student progress is measured once per year at the end of the spring semester. All students are checked at the end of each term: fall term, spring term, summer I term, and summer II term to determine if maximum hours have been attempted.
- 2) Any student failing academic progress will be notified in writing. Within his/her written notification, a date will be specified for an appeal hearing. Any student who wishes to appeal must submit his/her appeal documents to the Office of Financial Aid no later than one week prior to the specified date of the appeal hearing. Circumstances considered in the appeal process include, but are not limited to, death of a close relative or injury/illness of the student. All appeals are considered on a case-by-case basis.
- 3) Any student who has petitioned to the Registrar's Office to have grades forgiven may have those forgiven hours discounted from his/her progress measure by having a copy of the forgiven grade information forwarded to the Office of Financial Aid with an appeal letter.

- 4) Any student not in compliance with the grade point and/or hours attempted standards will have two semesters as a probationary period in which to comply. Any student placed on academic progress probation will be notified in writing.
- 5) Any student not in compliance after the period of probation will be notified in writing of his/her ineligibility for further financial aid. Each student may benefit from one probation period only. Any student placed on stipulations for previous failure to meet progress standards will not be permitted any additional probation periods. Any student on stipulations as of the effective date of this policy will have used their probation period and will not be granted another.

## SECTION V

# ACADEMIC INFORMATION

**Degrees Offered:** The bachelor of arts degree is conferred upon majors in communications, English, history, music, psychology, elementary education, secondary education and in the Regents Bachelor of Arts Program. The bachelor of fine arts degree is conferred upon graduates majoring in art. The bachelor of science degree is conferred upon graduates majoring in accounting, biology, business administration, chemistry, computer and information sciences, economics, environmental studies, family and consumer sciences, mass communication, mathematics, political science, recreation, sociology, and social work. The bachelor of science in nursing is conferred on majors in nursing. Requirements for associate's degrees are listed in the section on the Community and Technical College.

A Shepherd College student wishing to complete requirements for a second degree or major prior to conferral of his or her bachelor's or associate's degree may receive the second degree or major when the first is conferred, provided he or she has met all requirements for the second degree or major. A Shepherd College student who returns for a second degree or major within one academic calendar year of completing the first may receive the second simply by completing all requirements for that second degree or major. (Note: Students must meet the requirements stated in the *Catalog* in effect at the time of their re-enrollment in the second degree program.) However, all other graduates regardless of institution who possess a baccalaureate degree and wish to attain a second bachelor's degree or major must complete a minimum of 32 hours of additional course work in residence at Shepherd. Graduates from Shepherd College with any bachelor's degree except for the Regents Bachelor of Arts Program will not need to be reevaluated for meeting the general studies requirement. Graduates from another institution wishing to earn an associate's degree must complete a minimum of 24 hours of additional course work in residence at Shepherd. (Note: Hours needed to complete requirements for a program/degree may exceed the stated minimum.)

Shepherd College does not award multiples of the same degree to an individual, i.e., a student cannot be awarded two A.S. or two B.S. degrees. A second major may be added to the transcript after the date of graduation with a comment on the date the second major was completed.

Shepherd College honors baccalaureate degrees from accredited institutions and does not require holders of such degrees to complete the general studies program with the exception of holders of degrees similar to the West Virginia Regents Bachelor of Arts Program. The program of study leading to the Shepherd baccalaureate is subject to the approval of the division chair in consultation with the department head in the student's program. The department head may, upon assessing the student's readiness and background, require the student to take specific general studies courses deemed essential to the major program.

## ACADEMIC ADVISEMENT

### Mission

Believing academic advising to be a developmental process, the mission of the Shepherd College Academic Advising Program is to assist students in the clarification of their educational and professional goals and in the development of educational plans that are compatible with those goals and which will enable students to succeed personally and professionally and to enter into productive careers.

## Goals

To achieve its mission, the Academic Advising Program is designed to accomplish the following goals:

- Articulate institutional requirements and policies.
- Assist students in their selection of appropriate courses.
- Assist students in developing an academic program consistent with the student's academic interests, aptitudes, and professional goals.
- Assist students in monitoring progress toward their established educational and professional goals.
- Refer students to other appropriate institutional support services, when necessary.

## Definition of Academic Advising

Academic advising is a developmental process which assists students in the clarification of their educational and professional goals and in the development of plans for the realization of those goals. It is an ongoing and multifaceted process by which students are assisted in realizing their maximum educational potential through communication and information exchanges with an advisor.

An academic advisor is initially assigned on the basis of academic interest expressed by the student. It is the responsibility of both the student and his/her academic advisor to participate in the advising process equally. The academic advisor serves as a resource for course/career planning and academic progress review and as an agent of referral to other campus services as necessary. The academic advisor is not authorized to change established policy of the College. Any advice which is at variance with established policy must be confirmed by the vice president for academic affairs. After consultation with an academic advisor, it is ultimately the student's responsibility to choose and implement his/her academic program and to see that all specific requirements for that program and all general requirements for graduation from the College have been met in an acceptable and timely manner.

## Joint Responsibilities in the Advising Process

### General Responsibilities of the Academic Advisor

- The advisor should be available to students on a regular basis.
- The advisor should encourage honest and meaningful communication between faculty and students.
- The advisor should assist students in developing decision-making skills by helping students identify and assess alternatives to and the consequences of their academic choices.
- The advisor should stay informed about College programs, policies, and procedures, and should explain the specific requirements of the student's academic program and the general requirements for graduation from the College.
- The advisor is an important source of information for the student and should be familiar with the campus resources available to students who need them.
- The advisor should know when and where to refer students to receive the assistance that they need.
- The advisor should keep accurate records and monitor the progress of advisees.
- The advisor should genuinely care about students and take the initiative to reach out to students in times of need.

### General Responsibilities of the Advisee

- The student should consult with his/her academic advisor often.
- The student should seek assistance with decisions to be made rather than expect the advisor to make them.
- The student should accept responsibility for these decisions.
- The student should be knowledgeable about the academic policies, requirements, and procedures of the College.
- The student should make appointments for academic advising and scheduling of classes.
- The student should be on time for the advising session prior to registration and come to it with the necessary forms completed, an idea of the type of courses needed, and a list of alternatives, if necessary.
- The student should follow through with appropriate action after each advising session and keep the advisor informed of all changes made in the student's class schedule.

## ACADEMIC WORK

### Schedule of Classes

A complete schedule of classes offered each semester showing days of the week and the hours at which they will meet will be available before the beginning of the semester. Each semester's schedule of classes includes a tentative listing of course offerings planned for the following semester. The College reserves the right to cancel classes with an enrollment of 10 or fewer students and to make changes in a student's schedule for class balancing and other administrative purposes.

### Final Examinations

The policy of the College is to require that final examinations be given at the end of each semester and summer term. A schedule prepared by the Registrar's Office establishes regular periods of semester examinations; the final day or days of each summer term are reserved for this purpose. Final examinations are to be administered for every course at the published time, unless other arrangements are approved by the vice president for academic affairs.

Last-semester seniors (graduating at the end of either the fall or spring semester) with a quality point average of 3.0 or better in a given course (this recommendation not to include general education courses) may be excused from the final examination at the option of the instructor. Such students may elect to take the final examination which will count in the determination of the final grade. This policy does not apply to courses taken during summer sessions.

### Academic Load

A semester hour consists of one hour of recitation with two preparation hours per week. Twelve semester hours per semester constitute a minimum full-time academic load. The normal load is 16 hours per semester thus making 128 hours in eight semesters (four years). One hundred twenty-eight hours are required for a bachelor's degree.

Course loads in excess of 16 hours may be taken; however, the academic load for the first semester should generally not exceed 17 hours. Thirty-two semester hours each year will usually prove sufficient for the average student. Students may register for a maximum of 19 credit hours per semester, exclusive of private applied music lessons and ensembles. A student who wishes to register for more than 19 hours, including non-Shepherd College courses, must first secure the written approval of his or her advisor, department chair, and vice president for academic affairs.

Procedures for Exceptions to the 19 Credit Hour Course Load Policy: A student must 1) currently be carrying a 3.0 or higher overall grade point average, and 2) demonstrate evidence that current and previously enrolled courses have been successfully completed. If the above two criteria have been met, approval shall be sought from the student's advisor, department chair, and vice president for academic affairs. Any exceptions to this rule must be appealed to the Admissions and Credits Committee with documentation and support from the faculty advisor and the student who desires this exception. In no case may a student enroll for over 23 hours per semester.

The normal summer load is six semester hours of credit for each term, with a total of 12 semester hours for the summer sessions. Fourteen semester hours is the maximum load during the two terms. Exceptions can be made on petition to the respective advisor, department chair, and vice president for academic affairs.

### Auditing Courses

A student may initially register for a course as an auditor. Declaration of a change in a course from credit status to audit status must be processed within the first 15 class days (Monday-Friday) of a fall or spring academic session or within the first three class days (Monday-Friday) of a summer session. Any later change must be appealed to the Admissions and Credits Committee. An auditor is expected to comply with the instructor's attendance policy. Regular College fees are charged for persons auditing a course. No credit is awarded for an audited class.

## Special Examination for Course Credit

Application must be made to the registrar for permission to take a special examination. To qualify for permission to take such an examination, an applicant must be enrolled full-time at Shepherd College and be recommended by the department chair and the instructor concerned. Examinations will not be given for courses in which the student has obtained a low grade previously.

Applicants must pay a fee for each special examination. A receipt for the payment of the fee must be obtained from the Business Office. No money will be refunded if any examination is failed. Upon successful completion, the student will receive the hours credit for the course with no letter grade designated. This will not affect the quality point average of the student.

## Courses Taken at Other Institutions

A Shepherd student must apply for transfer approval to take a non-Shepherd College course prior to enrollment at another institution. To apply for transfer approval, the student must be in good academic standing (institutional and overall GPA of 2.0 or above). No course that a student has attempted at another institution while on suspension shall be accepted by Shepherd College as part of the 128 hours minimum necessary for graduation. A student who previously enrolled in a Shepherd College course may not petition to retake that course at another institution. Course fulfilling major, minor, or teaching field requirements are rarely approved for off-campus enrollment.

To receive credit for a non-Shepherd course, a permission/approval form (green form) must be obtained from the Registrar's Office. The student will follow all procedures enumerated on that form including signatures of approval from the department chair of the discipline where the equivalent Shepherd course is offered and the student's faculty advisor. After obtaining the appropriate signatures, the student submits the completed form to the Registrar's Office.

Should any of the signatures not be secured, the completed green form, along with the student's written justification for seeking the course elsewhere, may be submitted to the registrar for presentation to the Admissions and Credits Committee for final action.

Articulation course agreements do not apply to any repeated Shepherd College course in which a student has received a grade of D or F. No Shepherd College D or F grade can be replaced by an equivalent transfer course.

## Special Topics Courses

The College offers courses which fulfill short-term needs not justifying permanent listing in the *Catalog* or which respond to requests received on short notice.

Each discipline may have two courses, one lower-level and one upper-level, bearing the designation "Special Topics: (specific title)." The numbering of these courses is generally 199, 299, 399, or 499 depending on the level. The class schedule and the student transcripts also will carry the specific title of the course. Courses will be offered upon the agreement of the vice president for academic affairs.

Credit given will be from one to four hours, and the course may be repeated as needed by the department. Topics for these courses will be created as needed by the department.

## General Studies Curriculum

Shepherd College has established the following general studies program which is required for all bachelor's degrees except the Regents B.A. degree, which has a separate set of requirements found under that section of the *Catalog*. The courses listed below would usually be taken during the student's first two years of college work and are designed to give the student a foundation in the humanities, life or physical sciences, mathematics, social sciences, and physical education. In addition, basic computer literacy is required including e-mail use, Internet use, electronic library research, and word processing skills. These courses and requirements should assist the student in developing the ability to synthesize knowledge, both past and contemporary, to develop values, attitudes, and traits associated with an educated person in the modern world, and to provide the basis for a liberal arts education. A total of 47 semester hours of course work is required as follows:

## HUMANITIES—19 semester hours

MUSC 111	Introduction to Music .....	2
ART 103	Introduction to Visual Arts OR .....	2
ART 104	Introduction to Visual Arts (required for art majors) .....	3
ENGL 101, 102	Written English I and II .....	6
ENGL 204	Survey of American Literature .....	3
ENGL 208	Survey of World Literature I OR .....	
ENGL 209	Survey of World Literature II .....	3
COMM 202	Fundamentals of Speech .....	3

## LIFE OR PHYSICAL SCIENCES—8 semester hours \*

Students will choose one set of courses listed below:

BIOL 101, 102	General Biological Science .....	8
BIOL 208, 209	Plants as Organisms and Animals as Organisms .....	8
CHEM 101, 101L, 102, 102L	Chemistry in Society I and II .....	8
CHEM 120, 120L, 122, 122L	College Chemistry I and II .....	8
CHEM 207, 207L, 209, 209L	General Chemistry I and II .....	8
GSCI 101, 102	Astronomy I and II .....	8
GSCI 103, 104	General Physical Science I and II .....	8
PHYS 201, 201L, 202, 202L	College Physics I and II .....	8
PHYS 221, 221L, 222, 222L	General Physics I and II .....	8

## MATHEMATICS—3 semester hours

MATH 101	Introduction to Mathematics OR .....	3
MATH 108	Precalculus OR .....	3
MATH 154	Finite Mathematics OR .....	3
MATH 205	Calculus with Applications OR .....	4
MATH 314	Statistics .....	3

## SOCIAL SCIENCES—15 semester hours

ECON 123	Contemporary Economics OR .....	
ECON 205	Principles of Macroeconomics** .....	3
HIST 101	History of Civilization: Ancient World through Medieval Period OR .....	
HIST 102	History of Civilization: Renaissance through French Revolution OR .....	
HIST 103	History of Western Civilization: French Revolution to Present .....	6
	(students will choose 2 of 3 listed)	
PSCI 100	Politics and Government OR .....	
PSCI 101	American Federal Government .....	3
SOCI 203	General Sociology .....	3

## PHYSICAL EDUCATION—2 semester hours

GSPE	General Studies Physical Education Courses .....	2
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## FOREIGN LANGUAGE—12 semester hours (required only for B.A. programs, except education).

Students in the B.A. program (not including education) are required to complete 12 semester hours in the same foreign language, except music students whose requirements must be approved by the chairs of the Music and English and Modern Languages departments. Two years of German or French or both are recommended for students who anticipate going to graduate or professional school. The foreign language requirement for the B.A. degree can be satisfied in any of the following ways:

1. By successfully passing the college Foreign Language Placement Test.  
Beginning in the fall semester 1990, all students who have had course work in a foreign language and who wish to fulfill the foreign language requirement for the B.A. degree will take a placement test to determine their competency in that language. Placement tests in

French, German, and Spanish will be administered by a member of the foreign language faculty during each preregistration period of the academic year. Performance on placement tests will be evaluated by a member of the foreign language faculty who, with the approval of the chair of the Department of English and Modern Languages, will determine the course level at which the student must begin his or her language study at Shepherd College.

A strong performance on the Foreign Language Placement Test may entitle the student to waive three, six, nine, or twelve credit hours, corresponding to one, two, three, or four semesters of foreign language study at Shepherd College. A student receives no credit for waived courses. Permission to retake a Foreign Language Placement Test rests with the chair of the Department of English and Modern Languages.

2. By receiving advanced placement credit for foreign language examinations.  
A score of four on the advanced placement tests in French, German, or Spanish entitles a student to three hours credit in the same language, while a score of five entitles a student to six hours credit. No credit will be awarded for scores of three, two, or one.
3. By successfully completing CLEP tests in French, German, or Spanish.  
For the College's policy on taking CLEP tests, see Section II, Admissions.

\*Since major fields of study may have specific requirements for mathematics or science courses, students should consult their academic advisor in selecting these courses.

\*\*Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.

## Classification of Students

Classification of students is made on the following basis: first year, 24 semester hours or less; second year, 25 to 56 semester hours; third year, 57 to 91 semester hours; fourth year, 92 or more semester hours.

## Selecting a Major and Minor

The list of majors and minors is found at the beginning of Section VI Programs of Study with the curriculum for each following in that section. A comprehensive major needs no minor; teacher education programs are comprehensive.

Students should be aware of the value and necessity of choosing a minor early in their college career, if they are not in a comprehensive major or if the minor is not prescribed by the major. Delaying this decision beyond the sophomore year may mean that the student will not be able to complete the degree program in four years.

## Degree-Seeking Undecided Majors

Students who seek a four-year degree but have not chosen a major will be placed in the B.S. Undecided program and assigned an academic advisor in Career Services with whom they will work closely until a major is officially declared. Students will not be permitted to remain as B.S. Undecided registrants after either their third semester at Shepherd College or after they have completed 32 hours of undergraduate credit, whichever comes first. At that time, students will be assigned an academic advisor in the department of their declared major.

## Withdrawal and Change of Class Schedule

Students desiring to add or drop a course during the first five class days of a semester should do so by using the RAIL system. A course dropped during this time period will not appear on the student's transcript.

Beginning on the sixth class day of the semester until 4 p.m. on Friday of the twelfth class week, a student may withdraw from a class with a grade of W, without affecting grade point average (see Grading System). There will be no exceptions to this deadline (see Summary of Withdrawal Dates).

The last day for withdrawal from an eight-week class will be as posted in the academic calendar.

During the summer sessions, any time prior to 4 p.m. of the second calendar day before the last day of classes of each summer term, a withdrawal (W) will be permitted. Failure to submit the withdrawal form to the Registrar's Office by the deadline will result in the grade of F or IF (see Grading System).

Until 4 p.m. on the last class day of the semester, a student may process through the Registrar's Office a complete withdrawal from the College (all enrolled classes). Students who discontinue attending class without following the proper withdrawal procedures will receive a grade of F or IF in the course (see Grading System).

Withdrawal from the College must be reported and financial clearance made at the Business Office (see Grading System for additional information on withdrawals).

#### Summary of Withdrawal Dates

**Action:** Dropping a class.

**Date:** First five class days.

**Resulting Grade:** Dropped course does not appear on the transcript.

**Action:** Withdrawing from a class.

**Date:** Sixth class day through Friday of the twelfth week of classes\*.

**Resulting Grade:** W.

\* *The Admissions and Credits Committee will not accept petitions for exceptions to this deadline.*

**Action:** Complete withdrawal from the College.

**Date:** From the sixth class day through the last class day of the semester.

**Resulting Grade:** W.

The withdrawal procedure is incomplete until all necessary signatures have been secured and the appropriate forms returned to the Registrar's Office by the specified time stated in the current academic year calendar.

Any counseling provided to a student from any employee of the College, that is at a variance with established College policies, must be confirmed by the vice president for academic affairs. Although a student may receive advice from any agent of the College, the final responsibility for a decision concerning withdrawal rests with the student, in consultation with the course instructor, in accordance with College policies. Prior to withdrawing from a course, those students receiving financial aid must refer to the "Satisfactory Academic Progress Policy" section of the *Catalog*.

## Absence with Leave Policy

Any student who wishes to have a one-semester leave-of-absence from Shepherd College while avoiding the \$30 admission fee and retaining access to early registration for the semester following the leave may apply.

The application for leave-of-absence is due at least two weeks prior to the final exam of the semester in which the student is currently enrolled. The policy is available for students currently in good standing academically. If, at the end of the semester, the academic standing changes to on probation, the student will lose the qualification for being readmitted in this fashion. Also the \$30 admission fee will not be waived.

If a student with a leave-of-absence plans to attend another institution while on leave, and wants Shepherd College credit for the course(s) taken at that institution, an approved green form must be submitted prior to the leave semester.

After the application for leave-of-absence has been submitted to the Office of the registrar and has been checked for completeness and GPA, it will be forwarded to the Admissions Office for processing. A successful student will be provided by letter with the term PIN for registration. The student should also consult with the advisor before registering.

## GRADING Grade Reports

Midterm and final grade reports follow the normal grading system. A copy of the midterm and final grade reports will be available on campus for all students in their advisor's office. First semester freshmen and high school seniors' grades are mailed to the student's permanent address.

## Grade Point Average

A student's grade-point average is computed on all work that a student has attempted for college credit (including Shepherd College credits and transfer credits). Courses with a grade of W, courses taken on a pass/fail or audit basis, and Academic Foundations courses are not considered courses attempted for college credit in the computation of a student's grade point average.

Quality points are based on the point value per semester hour multiplied by the number of hours of course work attempted. A student taking a three-hour course and receiving a grade of C would earn 6 quality points. (C = 2 quality points times 3 hours.)

To compute a grade point average, divide the total quality points accumulated by the total credit hours attempted for which college credit is given toward graduation (e.g., 220 quality points accumulated divided by 88 credit hours attempted for college credit =  $(220/88) = 2.50$  GPA.

## Grading System

Summary of Grading System

<i>Grade</i>	<i>Explanation</i>	<i>Point Value per Semester Hour</i>
A	Superior	4
B	Good	3
C	Average	2
D	Below Average, lowest passing grade	1
F	Failure	0
I	Incomplete, must be completed by date registered on incomplete form*	—
W	Withdraw without grade point penalty*	—
P	Pass*	—
IF	Failure due to irregular withdrawal from college or from a single class	0
AU	Audit*+	—
CR	Credit only awarded*	—

\*Not used in computation of grade point average.

+Declaration of a change in a course from credit status to audit status must be processed within the first 15 class days (M-F) of a fall or spring academic session or within the first 3 days of a summer session. Any later change must be appealed to the Admissions and Credits Committee.

## Pass/Fail

Students may choose to take elective courses on a pass/fail basis instead of the regular grading system, in accordance with the following:

- Electives shall be defined as courses not directly required for a degree. Thus, required electives within the major field of concentration would be excluded from the pass/fail option. In the event of change in major fields, the course previously taken on a pass/fail option if applicable to the new major field shall be substituted by approved courses. Required general studies courses also will be excluded from the pass/fail option. The ultimate responsibility for correct scheduling rests with the student.
- A passing grade in the pass/fail option will be equivalent to the normal passing range of A through D in the conventional system.
- All students are eligible for the pass/fail option with the exception of those currently on academic probation.
- Students will be limited to 24 hours of pass/fail options, with not more than one course to a maximum of four credit hours being taken during one session.
- In the Registrar's Office, a student must make a declaration for the pass/fail option by the tenth class day of the semester. This decision will be final.

## Incomplete Grades

A grade of incomplete may be given to a student who has satisfactorily completed most of the requirements for a course, but because of illness or other extenuating circumstances, has not completed all of the requirements. All incomplete grades must be accompanied by a form provided

by the Registrar's Office and completed by the instructor and, if possible, signed by the student.

Students receiving an incomplete must confer with the instructor, prior to the end of the semester, to determine the exact deficiencies that are to be made up within the next semester. These requirements will be listed on the incomplete form. This form will become the basis for the completion of the course. If the student is not available to meet with the professor prior to the end of the semester for which the incomplete grade is sought, the student must consult with the instructor early in the following semester to determine the requirements and the timetable for completing the work for the course.

When the work has been completed, the instructor must return all copies of the incomplete grade form to the Registrar's Office with the new grade. Grade changes must be made prior to the first day of registration for a regular semester, a summer term, or such change will not be posted to the student's transcript during the first three weeks of a semester or the first week of a summer term.

Incomplete grades issued during the fall semester must be made up at least ten days prior to the date final grades are due for the following spring semester. Incomplete grades issued during the spring semester must be made up at least ten days prior to the date final grades are due for the following fall semester. Incomplete grades issued during either summer session must be made up at least ten days prior to the date final grades are due for the following fall semester. If the incomplete is not made up in accordance with this time schedule, the grade automatically becomes an F. When an incomplete grade is changed, the student's grade point average is recomputed. Any exceptions to these procedures must be submitted to the Admissions and Credits Committee.

## Repeating Courses

A student may not repeat a course or courses for credit where the original grade was a C or better. The only exception is a course listed in the *Catalog* course description as repeatable.

## 60 Hour Repeat Rule

A student who earns a D or F grade in any course completed no later than the semester or summer term that the 60th semester hour is attempted may repeat the course prior to receiving a baccalaureate degree to be considered under this rule. The course(s) must be repeated at Shepherd College. In such a case, the original grade of D or F shall be disregarded, and the subsequent grade or grades shall be used for determining the student's grade point average. The original grade shall not be deleted from the student's record.

## Appealing a Grade

The Admissions and Credits Committee has approved a Grade Appeal Policy. A copy of this policy and the procedures to follow in order to appeal a grade may be obtained from the Shepherd College *Student Handbook*.

# GENERAL REQUIREMENTS FOR GRADUATION

Students must apply for graduation. Students within two semesters of graduation should check with the Career Center, where the application process is initiated, for senior orientation dates.

## Baccalaureate Degrees

A traditional degree includes one major and one minor field. The comprehensive degree consists of one major field and no minor field; the College registrar will not evaluate a minor field with this major. The College registrar will not evaluate an additional minor field. A student may elect to complete requirements for a double major in one degree (associate or bachelor) category or may elect to complete requirements for two majors in separate degree (associate and/or bachelor) categories.

## Minimum Semester Hours

The minimum number of semester hours for a baccalaureate degree includes 128 semester credit hours of courses numbered 100 and above. (This may include transfer credits that have been

evaluated by Shepherd College as courses numbered 100 and above.) Of the necessary hours for graduation, 45 hours must consist of courses numbered 300 and above. (This may include transfer credits that have been evaluated by Shepherd College as courses numbered 300 and above.) The minimum number of semester hours for an associate's degree includes 64 semester credit hours of courses numbered 100 and above.

### Minimum Grade Point Average

For each of the following areas, a minimum 2.0 grade point average (or a C average) is required: 1) all collegiate level course work attempted (overall GPA), 2) all Shepherd College course work attempted (institutional GPA), 3) all major field course work attempted, and 4) all minor field course work attempted. Higher minimums are established for some fields. Students should carefully consult major and minor course requirements.

### College Residence Credit Hours Required

A student must complete at least 32 semester hours of course work at Shepherd toward a baccalaureate degree and 24 semester hours of course work at Shepherd toward an associate's degree. The last 12 hours of course work for a baccalaureate or an associate's degree must be completed at Shepherd College.

### Residence Credit Hours in Major Field(s) of Study

Non-teaching degree candidates must earn a minimum of 15 hours of major field credits at Shepherd College.

### Community or Junior College Credit Hour Transfer Policies

Matriculating students who transfer from a regionally-accredited junior or community college are assigned a maximum of 72 semester hours toward the 128 credit hours minimum for graduation from Shepherd College. In compliance with West Virginia higher education board policy, students who have completed more than 72 hours of course work may select the courses they wish to have evaluated as part of their semester hours of credit counted toward graduation. The total number of credit hours earned will be calculated in the student's overall grade point average.

### Currently or Previously Enrolled Shepherd College Student Transfer Policies

For a currently enrolled student to receive credit for a non-Shepherd College course, the official Transfer Approval Form must be completed. Formal approval must be obtained from the department chair of the discipline in which the course is to be taken, as well as from the student's faculty advisor. The official form must be submitted to the Office of the Registrar prior to the student's enrollment in any course. Courses fulfilling major field requirements are rarely approved for off-campus enrollment. In unusual circumstances the department chair in the student's major field may recommend to the Admissions and Credits Committee that a student enroll in a non-Shepherd College course to satisfy a major field requirement. No course that a student has attempted at another institution while on suspension shall be accepted by Shepherd College as part of the 128 hours minimum necessary for graduation. Articulation course agreements do not apply to any repeated Shepherd College course in which a student has received the grade of D or F. No Shepherd College D or F grade can be replaced by a transfer equivalent course.

### Transfer Students from the Community and Technical College at Shepherd

Courses offered by the Community and Technical College at Shepherd College may satisfy requirements toward the 128 hours minimum for a baccalaureate degree.

### Additional Requirements for Graduation

1. All financial obligations to Shepherd College must be paid in advance.
2. In certain instances additional requirements may be stipulated in selected fields of study; degree candidates must consult with their academic advisors concerning such requirements.
3. Students **majoring in two disciplines** having the same core shall be granted permission to use that common core to satisfy core requirements for **both majors**.

4. Students majoring in one discipline and minoring in another discipline, where duplicate courses are required in each field of study, shall choose a substitute course for each overlapping course.
5. A student cannot select a minor field of study whose required courses duplicate the major field requirements by more than eight semester hours. Exceptions to this rule must be approved by the vice president for academic affairs.
6. The student's faculty advisor and the chair of the student's minor (or second major) field shall approve all elective course selections including: major, minor, teaching field, general elective courses, and course substitutions.

It is the student's responsibility to check on all requirements and to make inquiry if there is doubt about meeting any of them. Required courses should be completed as soon as possible to prevent conflicts of prescribed subjects during the senior year. A student will have a seven-year period to complete requirements under the catalog in effect at the time of entrance. Students may elect to graduate under a later catalog than the one under which they entered; however, students are not permitted to split catalogs.

## ACADEMIC PERFORMANCE

### Office of Student Academic Support Services

The Office of Student Academic Support Services, headquartered in Knutti Hall, room 114, offers a variety of course work and services to assist students in achieving academic success at Shepherd. Among the responsibilities of this office are 1) the Academic Foundations Program, 2) the tutoring program, and 3) Writing Center.

The Academic Foundations Program at Shepherd is designed to bridge the gap between high school and college for interested students who do not meet the stated admissions standards. Through courses in reading, study skills, composition, and mathematics, the program can assist recent high school graduates and nontraditional students who wish to attend college but whose skills need further development. Academic Foundations courses feature individualized instruction and learning assistance sessions outside of class. Completion of the Academic Foundations Program will assist students in being academically prepared to pursue a Shepherd College degree.

In addition to Academic Foundations course work for selected students, this office operates the college-wide learning center called the Study Center. The Study Center offers free tutoring in most academic courses to any interested Shepherd student. Besides peer tutors, the Study Center employs a support staff of professional learning resource specialists in the areas of mathematics, composition, reading, and study skills to work with students individually and in small groups. The Study Center also sponsors free workshops on how-to-study skills and computer-assisted, self-study materials to be used independently to improve specific reading, writing, and mathematics skills.

## Attendance

Students are expected to attend class and to know and understand the specific attendance policies established by each of their instructors. Attendance policy for a given class is established by the instructor and stated in the course syllabus. Instructors will make reasonable accommodations for occasional, unavoidable absences based on highly legitimate grounds. Instructors will determine the most appropriate means of compensating for work unavoidably and legitimately missed in their classes. To be eligible for such substitute evaluation, students are responsible for discussing any absences with their instructors: such discussions must occur in advance of foreseeable absences and as soon as possible following unpredictable ones.

Students are expected to plan their class, work, and personal schedules to avoid potential conflicts. Legitimate reasons for class absences include documented and/or verifiable instances of the following: 1) death in the immediate family; 2) incapacitating illness or injury (not including any non-emergency doctors' appointments that could be scheduled at other times); 3) field trips required for other classes, intercollegiate competitions, or activities entailing official representation of Shepherd College; 4) seriously hazardous, weather-induced driving conditions (for commuter students only).

A student's evaluation in a course is the instructor's responsibility. A grade decision in a

course must be made by the instructor prior to the initiation of a grade appeal. A student who believes his or her grade has been adversely affected by an instructor's inappropriate implementation of the attendance policy may pursue a grade appeal at the close of the semester.

1. A student who has a documented medical disability or chronic illness that may affect his/her ability to attend class regularly and/or to complete scheduled in-class, graded activities (e.g., exams, oral reports, lab assignments) should confer with his/her instructors as soon as possible after the semester begins. In consultation with the student (and with doctors or Shepherd staff when appropriate), the professor can develop a contingency plan to accommodate any absences that may occur because of the disability or illness: the instructor may create alternative assignments or otherwise determine the best means of assuring that the student's semester grade will not suffer should the student have to miss classes as a direct result of his/her disability or medical condition. To the greatest extent consistent with the particular disability involved, a chronically ill or disabled student will not only be treated equally with other students, but will also be equally expected to adhere to course policies and assignments established for all students.
2. In rare instances a student may suffer an unanticipated medical problem or must meet a military-service obligation requiring complete absence from school over an extended period (i.e., weeks rather than days). Such a situation will create the need to confer with instructors as soon as is feasible—possibly through a relative or other responsible surrogate. An instructor may be able to design alternative assignments that can be done independently. However, some courses by their nature do not lend themselves to compensation for prolonged periods of missed classes and assignments: for such classes, the alternatives may be limited to either a Withdrawal or an Incomplete specifically mandating that the student actually take some or all of the relevant course when it is next offered. In such circumstances, the Admissions and Credits Committee will review any necessary requests for waivers regarding institutional deadlines regarding Withdrawals or Incompletes when 1) the student's petition clearly and fully explains the situation calling for the waiver, 2) appropriate documentation is presented, 3) the request is supported in writing by both the instructor and the student's advisor, and 4) the student's request is made in a timely manner, but no later than the tenth class day of the following spring or fall semester.

## Graduation with Honors

Honors are determined by the cumulative quality point average of the student's work at graduation. Until fall 2000 there will be two standards running for determining honors according to the catalog date of the student.

For students earning bachelor degrees following the 1997-99 *Catalog* or earlier catalogs, honors will be awarded according to these criteria: highest honors, *Summa Cum Laude*, 3.750 to 4.000; high honors, *Magna Cum Laude*, 3.500 to 3.749; and honors, *Cum Laude*, 3.000 to 3.499. For students entering the College as of fall 1999 or thereafter, or students using the 1999-2000 *Catalog* or any catalog thereafter, honors will be awarded according to these criteria: highest honors, *Summa Cum Laude*, 3.850 to 4.000; high honors, *Magna Cum Laude*, 3.700 to 3.849; and honors, *Cum Laude*, 3.500 to 3.699.

To graduate with honors in the Regents Bachelor of Arts Degree program, a student must have 80 semester hours of traditional credits, with 32 of these credits earned at Shepherd College.

For students earning an associate's degree only, honors will be awarded according to these criteria: honors, 3.50 to 3.74, and high honors, 3.75 to 4.00.

Note that when a student chooses to pursue a program in a later catalog than the one in effect upon admission, all aspects of that catalog will apply including the honors standards.

## McMurran Scholars

In 1961 the faculty created the award of McMurran Scholar, which is the highest academic honor awarded at Shepherd College.

Joseph McMurran Scholars are individuals who are enrolled in a major program leading to the four-year baccalaureate degree and who:

1. Have been presented by the vice president for academic affairs to the Honors Committee as being eligible as a scholar, having amassed:

- a. A minimum of 80 semester hours for which a traditional grade has been given (Pass-Fail, CLEP, special examination grades and veteran's credit do not count).
- b. A minimum 3.7 quality point average.
2. Have completed two consecutive semesters of study at Shepherd College, exclusive of summer work, for an average of 15 credit hours per semester, or for an average of 12 credit hours per semester where the supervised teaching process is involved.
3. Have been nominated by a minimum of three faculty members who have sufficient knowledge of them for demonstrating the capacity and inclination to pursue scholarly inquiry. At least two of these faculty members should come from the nominee's major department, and the third should come either from this department or from a closely allied discipline.
4. Have subsequently been approved by the faculty at large (a listing of all nominees along with the names of the three faculty in support of each nominee will be distributed to the faculty at large). Any faculty member feeling he or she has just cause may challenge the nomination by submitting a statement of position to the Honors Committee chair. All challenges shall be returned to the originating department for consideration and action.

The elected Scholars are appropriately recognized at an annual formal College convocation and the commencement exercises.

## Dean's List

To be named to the Dean's List, a student must earn at least 15 hours of work or be in the professional teaching block and must maintain a 3.4 average for the semester.

## Assessment

The Shepherd College Mission Statement says "student learning is central to the culture of our institution and finding ways to improve student learning is a continuing process."

The College can derive many benefits from integrating a campus-wide assessment program. Academic departments have the opportunity to take the step back, that is, reflect on what the departmental mission is, and what a graduate from that program will know, value, and be able to do. Students will find it very helpful to know the goals of the major and how each course in the program relates to those goals. Faculty will also be able to use the assessment results to determine if program goals are being met. If particular goals are not being met, faculty will have specific evidence concerning what curricular changes need to be made to improve student attainment of program goals. Academic support services, such as the library, student affairs, academic advisement, and financial aid, also make a tremendous contribution to student learning on campus. Thus, all programs can assess how they contribute to the learning environment and what changes they might make to maximize that learning experience.

### Participation in Assessment Activities:

Shepherd College **REQUIRES** student participation in assessment tests and surveys. The results enable the College to monitor its programs and services, to assist students in fulfilling their academic goals, and to fulfill reporting requirements to accrediting and government agencies. The assessment task force and the assessment coordinator oversee development and reporting of assessment activities. Both academic and administrative departments throughout the College will require student input about their functions from time to time.

Students will be notified when they are expected to participate in assessments. The assessments of freshman writing abilities and a survey of graduating seniors are well-established college-wide assessments. Sophomores' skills in general education outcomes will be undertaken regularly. In addition, each program conducts its own assessments of student learning. Other assessments will be conducted as needed. Generally these assessments can be completed in a modest period of time. The College will seek employers' input on the ability of graduates to perform in the workplace.

Failure to participate when required or any violation of the assessment or testing procedure can result in administrative action including withholding of grades and/or restriction from registration until the requirements are met.

### Learning Communities:

Shepherd is starting a new program in fall 2001 called learning communities. A learning community represents a group of students who take two of the same classes, which are linked by theme or content. This program enhances students' entire college experience by allowing them to become part of a close-knit academic community sharing common academic, social, and residential experiences. Learning communities foster connections among students, students and teachers, and disciplines and ideas. Learning communities promote active, collaborative learning and allow exploration of diverse perspectives. Some learning communities will have a residence hall component to provide students with the chance to live with other students who are also interested in this innovative learning approach.

## Academic Forgiveness Policy

Revised and approved March 14, 2001

*The academic forgiveness policy does not alter, change, or amend any other existing policies at Shepherd College and is formulated to be consistent with Series 20 of the West Virginia Higher Education Policy Commission and supersedes all previous academic forgiveness policies at Shepherd College.*

Academic forgiveness is intended for the student who is returning to college with a grade point deficiency. A student readmitted after July 1995 may be eligible for academic forgiveness unless the student has been placed on final academic suspension. (A student who has incurred three academic suspensions from any institution of higher education is on final academic suspension and does not qualify for academic forgiveness. However, a student on final suspension may appeal this decision to the Admissions and Credits Committee, according to procedures in the section on "Academic Suspension" in the Shepherd College *Catalog*. If the third suspension is repealed, the student may apply for forgiveness by submitting a written request to the registrar, as established in this policy.) The Regents Bachelor of Arts Program is governed by a different forgiveness policy.

This policy covers only those students who have not been enrolled as a full-time student (12 or more semester credit hours) at any institution of higher learning during the five consecutive academic years immediately preceding the readmission semester. This policy is limited to students who have not yet been awarded their first academic degree. Academic forgiveness will be granted only once for any student.

To be eligible for academic forgiveness, a student who does not qualify for readmission because of a low GPA may be admitted to the College and placed on academic probation. The academic forgiveness policy may be applied after a readmitted student has earned twelve credit hours that apply toward graduation with a minimum GPA of 2.0. These twelve hours must be earned at Shepherd College.

During the first semester of re-enrollment, a student desiring academic forgiveness must complete a written request form and file it in the Registrar's Office. This request must certify that the applicant has not been enrolled as a full-time student (twelve or more credit hours) in any institution of higher learning during the five consecutive academic years immediately preceding the readmission semester. If the student has attended any institution of higher education on a part-time basis during the specified five-year period, the student must have earned at least a 2.0 GPA in all course work attempted.

This request will indicate whether the applicant wishes to exclude from the GPA calculation (1) all F and IF grades; or (2) all F, IF, and D grades earned prior to the five consecutive academic years immediately preceding the beginning of the readmission semester. This includes those grades appearing as transferred grades on the official transcript. If a student chooses to have all D grades excluded from the GPA calculation, it is with the understanding that the courses for which the D grades were earned cannot be used to satisfy any requirements for graduation.

When and if all prerequisite conditions have been met, academic forgiveness will be granted upon the successful completion of the readmission semester. The registrar will then officially calculate the student's current GPA. However, no grade will be removed from the permanent record. A student awarded forgiveness under this policy does not qualify for graduation with honors.

This policy pertains only to the calculation of the GPA required for graduation. Academic forgiveness does not pertain to a GPA calculated for special academic recognition (such as

graduating with honors) or to the requirements for professional agencies, or the West Virginia Board of Education.

The College is not bound by the decision of any other institution to disregard grades earned in college courses. Similarly, students should be aware that other institutions may not recognize academic forgiveness extended by Shepherd College.

## Academic Probation

At the end of each grading period each student's Shepherd College and cumulative grade point average is calculated. The calculation is determined by dividing the number of earned quality points by the number of quality hours. In the computation of the Shepherd and cumulative grade point average, a grade of I will not be included in the quality hours. When the grade of I is replaced by a passing or failing grade, the student's grade point average will be revised by the Office of the Registrar.

**Freshman/New Transfer Students:** At the conclusion of the first semester of attendance at Shepherd College, a student must attain a 2.0 Shepherd College and semester average. If the student fails to achieve a 2.0 in the first semester of residency, the student will be placed on academic probation. A student must then attain a 2.0 on all course work, excluding academic foundations courses, attempted during the next semester at Shepherd College. If the student fails to attain a 2.0 semester average during that next semester, that student will be suspended for the following semester.

**Continuing Students:** A student who has been enrolled for more than one semester and whose Shepherd College GPA or cumulative GPA falls below a 2.0 in any semester will be placed on probation. If the student fails to attain a 2.0 semester average during the next semester, that student will be suspended for the following semester.

To be removed from probation, a student must attain BOTH a 2.0 Shepherd College GPA and a cumulative GPA (includes course work attempted from other institutions).

## Academic Suspension

During a period of academic suspension, no credits earned at another institution will be accepted at Shepherd.

**Summer School:** Suspension will be waived temporarily for those who wish to attend either one or both summer sessions (at Shepherd) immediately following notice of suspension. The student placed on probation at the beginning of the fall semester must attain a 2.0 institutional grade point average on his or her combined hours for the fall, spring, and summer session(s) to be eligible to return for the following fall semester. The student placed on probation at the beginning of the spring semester must attain a 2.0 institutional grade point average on his or her combined hours for the spring and summer session(s) to be eligible to return for the following fall semester.

The student who has been suspended from the College for the first time may apply for readmission after one semester by completing an application for admission. The student who has been suspended from the College for the second time may apply for readmission after one academic year by completing an application for admission. The student who has been suspended from the College for the third time may apply for readmission after one academic year by completing an application for admission and petitioning the Admissions and Credits Committee. The Admissions and Credits Committee will review the application and render a decision in writing to the applicant.

The student on probation who withdraws from the College after the first five weeks of the semester will not be permitted to enroll in the College for the next regular semester or summer school. Any student who fails 50 percent or more of work attempted in any semester is subject to dismissal at the end of that semester.

Appeals to the above regulations may be made to the Admissions and Credits Committee.

Students receiving federal financial aid must also adhere to a satisfactory academic progress requirement. The specifics of this requirement may be found in the *Catalog* under the Section IV, Expenses and Financial Assistance.

## Academic Dishonesty

Cheating in all its forms, including plagiarism and cheating on visual work, is considered an academic matter to be controlled and acted upon by the individual faculty member.

Students guilty of academic dishonesty on examinations in any course shall receive, as a minimum penalty, a grade of F in that course. Such action shall be taken by the instructor, with written notification to the vice president for academic affairs. Repeated offenses shall subject the student to suspension or dismissal from the College. Students involved in facilitating academic dishonesty among others, such as by the unauthorized dissemination of examination materials, will be subject to disciplinary action beyond that called for by their own cheating in a course.

Plagiarism is “the act of stealing and using, as one’s own, the ideas, or the expression of the ideas of another.” Whether that other is another student or a published author, plagiarism is cheating. Detailed instructions on avoiding plagiarism will be provided in required English courses, and comments also may be made by instructors in other courses for which papers are written.

Guidelines and policies affecting dishonesty and most other aspects of student life may be found in the *Shepherd College Student Handbook*.

## SPECIAL PROGRAMS

### Independent Study Program

To encourage independent reading and the spirit of research, the faculty will admit, upon recommendation of academic advisors, properly qualified students as candidates for independent study.

College credit (determined at registration for course) of one to three semester hours will be allowed for independent programs on the recommendation of the study director with the approval of the department chair. Credit gained in independent study may not be substituted for required course work.

To receive credit for independent study, the student must fulfill the following requirements:

1. Engage in reading and research as directed by the study director to supplement knowledge from sources not supplied by the courses taken in the major field.
2. Submit to the department chair with the approval of the study director, not later than one week before the end of the semester, the original and two carbon copies of an acceptable research paper embodying the findings of the study.
3. At the discretion of the department, pass an oral examination on the subject of the research paper before an examining committee consisting of a minimum of the study director, the department chair, the vice president for academic affairs, and another faculty member selected by the student, with the study director acting as chair. (When the department chair and the study director are the same person, another representative from the department will be named by the department chair.)

To be admitted to candidacy, a student must satisfy the following conditions:

1. Have an overall average of 3.0 in not less than 80 semester hours attempted.
2. Have an average of 3.0 in the major field or teaching field.
3. Submit, through his or her advisor and study director to the chair of the department concerned, a research proposal together with an abstract of the proposal.
4. Have application approved by the chair of the department.

It is suggested that independent study may be particularly desirable to some students as a summer project.

## Program in Honors

The Honors Program at Shepherd College is designed to provide a varied and stimulating curriculum to students who have demonstrated the ability and willingness to engage in intellectual challenges. Honors courses encourage critical thinking, in-depth analysis, and a greater level of student involvement. Most Honors courses incorporate field trips to Washington, D.C., and Baltimore; Honors courses have also included international trips as well as travel within the United States in conjunction with course work in history, literature, and culture.

## Mission of the Honors Program

The mission of the Honors Program at Shepherd College is to create an academic environment in which gifted students can experience education in a dynamic and interactive way. Through

seminars that promote active engagement in the subject area, independent research, student-centered curriculum, and innovative teaching techniques, students in the Honors Program have the opportunity to become more self-directed in their learning. In the Honors Program, education does not simply take place in the classroom or through texts. Students become directly involved in the area of study through international and domestic travel, field trips, more one-to-one interaction with their professors and classmates, and a variety of activities outside the classroom that enhance their learning experience. In addition to expanding the students' academic horizons, the Honors Program encourages student leadership and service to the community. The aim is to create graduates of Shepherd College's Honors Program who are independent thinkers, insatiable learners, and responsible, socially conscious citizens. Our Honor students will leave Shepherd equipped to attend the finest graduate schools in the country and to be successful as solid contributors in their chosen professional careers.

## Honors Academic Requirements

Approximately 40 freshmen are selected each year to enter the Honors Program. The average SAT scores for those currently enrolled in the Honors Program is 1200; if the student has taken the ACT for admission, an average of 27 is usually required. Lower SAT/ACT scores may be offset by an outstanding GPA. High school GPAs should normally be 3.6 or above. During the application process, students will also complete a writing sample.

In order to remain in the Honors Program, students must maintain an overall 3.0 GPA and a 3.0 GPA in Honors courses. Students must also participate in all required Honors courses.

During the freshman year, Honors students must participate in the Honors core: Honors Written English and Honors History of Civilization. This two-semester, team-taught seminar introduces freshman Honors students to major types of expository and critical writing in conjunction with the study of western civilization. Topics focus on philosophical thought throughout history with emphasis on changes in government, economics, arts, science, and literature.

After completing the freshman core seminar, Honors students may choose an Honors course in a specific discipline or a special topics course. Special topics courses are team-taught seminars that cover interdisciplinary studies. In the past, these courses have included analysis of environmental issues; an exploration of the arts through theater, fine art, music, and dance; and the study of the history and culture of regions both within the United States and on an international level.

During their junior year, Honors students begin research toward a major thesis to be completed as a graduation requirement. Each student chooses a mentor from the faculty and begins to formulate a reading list that would contribute to a thesis proposal. In collaboration with his/her thesis director, the student develops an original idea about the chosen topic and then analyzes the information using research to substantiate this idea.

In order to graduate from the Honors Program, students must complete 27 hours of Honors courses including the required freshman core courses (12 hours), directed reading (3 hours), and the senior thesis or project (3 hours). All other Honors credits are acquired through electives.

## Special Features of the Honors Program

### Honors Spring Orientation

The Honors Program spring orientation is an opportunity for students who have been accepted to the Honors Program for the fall to experience campus life firsthand. Students arrive on Thursday evening and attend a dinner where they meet current students, faculty members, advisory board members, and administrators. High school seniors attending the orientation are greeted by a "host" student, a current member of the Honors Program, with whom they stay overnight and attend classes on Friday. Time for socializing, touring campus facilities, and meeting professors is part of the orientation schedule.

### Honors Conferences

Shepherd College maintains membership in the Southern Regional Honors Council and the National Collegiate Honors Council. Opportunities to present research, serve on student panels, and attend workshops at the yearly conferences of each organization are available to members in good standing in the Honors Program. A substantial portion of conference expenses are paid by the Honors Program when a student participates.

### Retreats

Early in the fall semester, all Honors students can attend a one-day retreat as a way of building community and discussing goals and values. Usually, the Honors Retreat takes place off-campus in a West Virginia State Park. In addition to discussing Honors education and curriculum, students get the opportunity to enjoy leisure time together and enjoy the beauty of West Virginia.

### The Honors Advisory Board

The Honors Advisory Board consists of an elected faculty member from each division, the Honors director, and three student representative from the Honors Program. The Board meets each month to discuss and evaluate the Honors Program, plan for new events, and collaborate on decisions about policy and procedures.

### International Study

The Honors Program utilizes a variety of options for students to study abroad. Up to this point, international travel has been in conjunction with a particular course (i.e., a winter trip to Hungary after a fall course in Hungarian culture and history). The Honors Center works closely with the Global Horizons program and the Modern Languages Department at Shepherd College to coordinate international study and travel.

If an Honors student wants to pursue an independent language course in a foreign country, he/she is encouraged to research the course of interest and submit a proposal to the Honors director and the Modern Language department. This proposal should include an overview or syllabus of the class, the host college/university, and the credit hours expected. In some cases, depending on the rigor of the course work, the student may receive Honors credit for this class.

### Shepherd College Honors Center

Miller Hall is the home of the Shepherd College Honors Center and is reserved for the work, recreation, and residence of Honors students. The Honors Center Office is situated next to a spacious study center equipped with tables, lounge chairs, and chalk boards. An adjacent computer center with printers is also available to Honor students for normal and late hour work.

The Honors Center gives students the opportunity to live together in a residential community. Here Honors students can establish closer ties outside the classroom as well as within. In addition, students have the opportunity to discuss course work in a more relaxed and informal setting. Activities are planned by students with the faculty members and college administrators who work together in undertakings such as lectures, formal and informal socials, field trips, community service, and other activities. The residential policy is such that non-disruptive behavior, mutual respect, and a quiet environment are encouraged among all Honor students.

## Required Honors Courses

### Freshman Interdisciplinary Written English and History of Civilization Seminar

This two-semester, team-taught seminar introduces freshman Honors students to major types of expository and critical writing in conjunction with the study of Western civilization. Topics focus on philosophical thought throughout history with emphasis on changes in government, economics, arts, science, and literature. Field trips include trips to Washington, New York, and Baltimore museums and theaters. Trips focus on the literary and historical connections of political thought and literary development. (English 101H, 102H; History 101H, 102H, or 103H.)

### Directed Reading/Thesis

After completing a proposal in the Directed Reading Course, students have one semester to complete the Honors thesis, the final requirement for graduation from the Honors Program. The thesis should be a carefully prepared argument, in which the student explains an area of interest in the major or minor in which he/she will graduate. Students may also opt to complete a project (this may be applicable for such majors as graphic design, etc.) A project must also have a proposal leading up to its completion. The thesis culminates in a formal presentation of research to an audience consisting of faculty, students, friends, and family. (488H, 489H.)

## Washington Gateway

Shepherd College's Washington Gateway Program draws upon the resources of the nation's capital and the College's proximity to those resources. Committed to excellence, Shepherd College provides a series of organized, in-depth, academic, cultural, and career experiences in the political and information capital of both our nation and the entire world.

The Gateway Program provides a variety of lectures, workshops, seminars, and field trip opportunities in such a way that the Washington, D.C.-Baltimore region becomes an exciting extension of the Shepherd experience.

The Washington Gateway includes five components:

- The Washington Semester at Shepherd College (see Experiential Education);
- Cooperative education and internship experiences (see Experiential Education);
- Special course offerings;
- Seminars and lectures;
- Junior High Washington Gateway Program.

Contact the Washington Gateway Office in the College Center for more information.

## Washington Gateway Courses

Each semester, unique and exciting Washington Gateway courses are sponsored by Shepherd College academic departments. These specialized courses utilize approximately 20 to 50 percent of class time in the metropolitan area. In these courses, students may visit Washington and Baltimore with faculty to observe Congress and government at work, attend concerts and cultural events, study government policy, and more. Recent Gateway course topics have included: Shakespeare; Opera; Literature and the Sexes; Therapeutic Recreation in the Metro Area; and Graphic Design.

## Seminar/Lecture Program

The Washington Gateway supports Shepherd's cultural arts programs in planning and coordinating various lectures and seminars relating to the metropolitan area. A number of well-known speakers and performers from the metropolitan area visit campus regularly to speak with students, faculty, and members of the community.

## Junior High Washington Gateway Program

The Junior High Washington Gateway program at Shepherd College is designed to be an educational experience for West Virginia students entering the eighth grade. Using Shepherd's campus and the resources of the metropolitan area, the Gateway program attempts to provide a supportive, learning environment that introduces students to college planning. Gateway's primary intent is to motivate students who need the challenge into becoming better students and to "turn them on" to college.

## Experiential Education

Shepherd encourages qualified upper-level students to round out their education with experiences that apply classroom learning to the reality of the business world, government, or not-for-profit organizations. Students must enroll in the appropriate experiential education course and complete academic work to earn credit and a grade. All experiences are supervised by both an on-site supervisor and a faculty member from Shepherd. Students have the opportunity to participate in experiential education through a variety of programs such as the Washington Semester, Cooperative Education, and other departmentally-sponsored internships. Academic departments, the Career Development Center, and designated academic advisors assist students in finding cooperative education or internship assignments.

## The Washington Semester

The Washington Semester is a Washington Gateway program that allows a student to spend an entire semester working in Washington four days a week. The intern gets the opportunity to experience the world of work, face questions of real importance in business and national or international life, and give serious consideration to the choice of a career. The graduate then enters

the job market as an applicant with demonstrated experience and references from work supervisors as well as academic advisors.

**Who is Eligible:** The Washington Semester is open to students from any major field. Half the 128 hours needed for graduation must be completed before the internship begins, with an overall GPA of 2.5. The student also must have completed at least nine credits in the major field or in the field most closely related to the internship, with a GPA of 2.5 in those courses. The Washington Semester is also available in the semester after the student completes all the requirements for graduation. The Washington Semester is now available to associate's degree students in the semester after they complete all the requirements for the associate's degree.

**How it Works:** The placement is tailored to the individual's goals, interests, and skills. Interns may work in any of the branches of government, in private trade organizations, or with not-for-profit groups. There is a supervisor at the workplace who trains, directs, and evaluates the intern.

Interns commute to Washington four days a week, then spend the fifth day at Shepherd taking part in the interdisciplinary Washington Semester Seminar, open only to participants in the Washington Semester program. The fifth day also allows time for work on the seminar paper and for meetings with academic advisors.

The internship earns 12 credits; the seminar earns 3 credits. Separate letter grades are assigned to the internship and the seminar; a pass/fail option is not available. These credits are counted as electives or, with the approval of the department, as partial fulfillment of the requirements of the major field.

## Cooperative Education or Co-op

Cooperative education offers the student the opportunity to integrate classroom learning and practical work experience with the added advantage of ongoing support and guidance from the Cooperative Education Office in the Career Development Center.

**Student Benefits:** Besides providing employment opportunities, cooperative education enables the student to gain invaluable pre-graduation experience in the career field; the opportunity, in many programs, to earn credit toward a degree; an opportunity to explore career interest; a permanent record of co-op experience on the student's transcript; the opportunity to relate academic training to the real world of work; financial assistance with college expenses; increased confidence; and increased employability after graduation.

**Student Eligibility:** Students must have the following eligibility: currently enrolled as a matriculated student; minimum of 45 credit hours for a bachelor's degree or 30 hours for an associate's degree; six credits completed in the major; completed at least one semester at Shepherd College; and have at least a 2.3 GPA overall and a 2.5 GPA in the major (Note: Some departments may require a higher GPA).

**Application Procedure:** Qualified students can apply by completing the Co-op Application in the Career Development Center. The Cooperative Education Office in the Career Development Center will assist students in finding assignments. All assignments must be approved by the academic department sponsoring the placement before the beginning of work. A learning agreement is signed by the department, employer, and student. Co-op students will be evaluated by an assigned faculty coordinator and the employer supervisor. A record of an approved co-op experience will be entered on the student's transcript.

**Program Flexibility:** There are two co-op schedules. A *parallel* schedule enables the student to participate in a co-op (part-time) and attend classes as well. In an *alternating* schedule, the co-op experience (full-time) and class work alternates by semester. The co-op schedule is determined by the nature of the work, the employer's needs, and the student's academic schedule and flexibility.

**Co-op for Credit:** Shepherd's co-op program is a cross-campus program. Many departments have integrated co-op into programs of study. Check with the director of cooperative education or

academic chair in major to determine which programs are participating. Students earning credit for co-op may earn between 1 to 9 credit hours per experience depending on department policy and type of experience. Co-op is a multi-semester program and must be repeated at least twice before graduating. Each experience is evaluated individually. The co-op course is as follows (The xx represents department numbers that need to be inserted by the sponsoring department):

#### **XX 392. COOPERATIVE EDUCATION (1-9)**

Cooperative education allows students to acquire essential, practical skills by being exposed to the reality of the work world beyond the boundaries of campus. May be repeated for credit, but not in the same term. Co-op is a multi-semester program and must be repeated at least twice before graduating. Usually offered every term. Prerequisite: Minimum 2.3 overall GPA, 2.5 in the major, approval of academic department, and placement by the Career Development Center. Note: Individual departments have the authority to require higher GPA requirements within their respective disciplines and may have additional prerequisites; refer to specific course listing.

### **Internship**

A form of independent study that integrates classroom study with supervised work experiences, an internship enables students to acquire practical skills and to integrate the world of work with classroom knowledge. Although some interns do receive pay or subsistence benefits, the primary focus is upon the experience and the skills learned. An internship generally lasts no longer than a semester. Interns are not employees of the sponsoring company/organization. Since interns earn credit, students must enroll in an internship course and complete necessary academic work to earn a credit and a grade. An internship agreement is signed by on-site supervisor, faculty, and student. For more information, students should check with their advisor and/or department chair in their major field of study. The Career Center will assist students in finding internship sites.

#### **XX 292. INTERNSHIP (1-6)**

Practical experience in local, regional, and other organizations such as government offices, museums, arts agencies, social action groups, research laboratories, and private corporations/companies. Interns learn how to translate classroom theory and methods into professional skills and opportunities. Usually offered every term. May be repeated. Prerequisite: Must have sophomore class standing with minimum 2.5 overall GPA and prior approval by the academic department. Note: Departments may have additional prerequisites; refer to specific course listings.

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# ACCOUNTING

Due to the complexities of modern tax laws and governmental regulations, as well as the need for adequate cost information by business firms, the demand for accountants remains high, in both the private and public sectors of the economy. Courses are offered to provide job entry skills and to prepare students to take the Uniform CPA Examination.

## Curriculum for a Major in Accounting

Specific general studies requirements:

ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for a major .....		54

Business core requirements ..... 27

CIS 102	Microcomputer Applications .....	3
ACCT 201, 202	Introductory Accounting I and II .....	6
ECON 206	Principles of Microeconomics .....	3
BADM 212	Business Law I .....	3
BADM 224	Business Statistics .....	3
BADM 310	Principles of Management .....	3
BADM 340	Marketing .....	3
BADM 400	Financial Management .....	3

Accounting major requirements ..... 27

Required courses, 21 hours:

ACCT 329, 330, 331	Intermediate Accounting I, II, and III .....	9
ACCT 335	Income Tax Accounting .....	3
ACCT 336	Cost Accounting .....	3
ACCT 402	Auditing .....	3
ACCT 406	Advanced Accounting .....	3

Elective hours from the following courses, 6 hours:

ACCT 392	Cooperative Education in Accounting .....	1-3
ACCT 401	Computer-Based Accounting .....	3
ACCT 403	Fund Accounting .....	3
ACCT 408	Auditing II .....	3
ACCT 410	Accounting Theory .....	3
ACCT 435	Income Tax II .....	3
BADM 313	Business Law II .....	3
BADM 407	Business Strategy and Policy .....	3
MATH 205	Calculus with Applications .....	4

Students should complete MATH 154, ACCT 201, ACCT 202, CIS 102, BADM 224, ECON 205, and ECON 206 during their first two years of study. They should also complete ECON 205 and MATH 154 as their general studies requirements during their first two years.

NOTE: Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.

## Curriculum for a Minor in Accounting

Total hours required for a minor ..... 15

Required courses, 9 hours ..... 9

ACCT 329	Intermediate Accounting I* .....	3
ACCT 330	Intermediate Accounting II .....	3
ACCT 331	Intermediate Accounting III .....	3

Elective hours from the following courses, 6 hours: ..... 6

BADM 338	Business Information Systems .....	3
ACCT 410	Accounting Theory .....	3
ACCT 403	Fund Accounting .....	3
ACCT 335	Income Tax .....	3
ACCT 336	Cost Accounting .....	3

ACCT 305	Managerial Accounting .....	3
*Prerequisite: ACCT 201 & ACCT 202		

ANTHROPOLOGY/GEOGRAPHY

This minor introduces the student to cultures and their adaptation to physical environments. Past and present cultures in their broadest scope are examined, along with humans' use of natural resources, existing reserves, energy policy, and political economy.

Curriculum for a Minor in Anthropology/Geography

Total hours required .....	24		
GEOG 101	Principles of World Geography .....	3	
GEOG 301	World Economic Geography .....	3	
ANTH 300	Introduction to Archaeology .....	3	
ANTH 314	General Anthropology .....	3	
ANTH 315	Cultural Anthropology .....	3	
Elective courses—3 credits selected from any course offering in geography and 6 credits in any combination from either anthropology or geography electives .....			9

ART

The programs in the Department of Art are designed to provide students with a diversified experience in art and an in-depth experience in one major concentration area. Students are challenged and encouraged to grow creatively and professionally as artists, graphic designers, photographers, and teachers. They progress through a carefully-developed series of courses mixing the development of technical skills, language, and theories of the visual arts with the broad-based knowledge of the liberal arts essential to artists in the complex contemporary world. The programs lead to either the bachelor of fine arts (B.F.A.) degree, the only recognized degree for those who wish to compete for professional positions in studio art or to enter graduate school for an M.F.A., or the bachelor of arts (B.A.) degree in secondary education with a concentration in art education for those who intend to enter the teaching profession.

Curriculum for a Comprehensive Major in Art

Total hours required (including free electives) .....		128
General studies .....		48
(*All art majors are required to take ART 104 instead of ART 103)		
Fine arts core .....		18
ART 140	Foundations of Design I .....	3
ART 170	Foundations of Design II .....	3
ART 203	Survey History of Western Art .....	3
ART 204	Contemporary Art .....	3
ART 208	Portfolio Development .....	1
ART 304	Special Topics in Art History .....	3
ART 490	Senior Review .....	2

Core Electives in Group I and II

Group I: *To be discussed with advisor.*

Select three classes (outside the concentration requirement) from the following .....		9
ART 115	Drawing I .....	3
ART 260	Printmaking I .....	3
PHOT 281	Black and White Photography I .....	3
GRDS 173	Graphic Design I .....	3
ART 230	Painting I .....	3
ART 250	Sculpture I .....	3

Group II: *To be discussed with advisor.*

Select three classes (outside the concentration requirement) from the following ..... 9

ART 215	Drawing II .....	3
PHOT 282	Black and White Photography II .....	3
GRDS 276	Introduction to Computer Applications .....	3
ART 330	Painting II .....	3
ART 361	Printmaking II .....	3
ART 350	Sculpture II .....	3
ART 400	Special Topics in Studio Art .....	3

**Concentrations (choose ONE)**

In order to progress and to graduate the student enrolled in any B.F.A concentration must receive a minimum of a C in each course within the concentration, a minimum grade of C in ART 208 Portfolio Development and ART 490 Senior Review.

## Graphic design concentration ..... 45

Required courses ..... 33

ART 115	Drawing I .....	3
ART 215	Drawing II .....	3
GRDS 171	Graphic Design I .....	3
GRDS 274	Graphic Design II .....	3
GRDS 276	Introduction to Computer Applications .....	3
GRDS 370	Advanced Design .....	3
GRDS 373	Digital Printing Technologies .....	3
GRDS 374	Typography .....	3
GRDS 400	Special Topics in Graphic Design .....	3
GRDS 480*	Individualized Study/ Alternatives in Graphic Design ....	3
GRDS 490	Capstone Portfolio .....	3

Select 12 hours from the following (to be discussed with advisor) ..... 12

GRDS 377	Illustration .....	3-6
GRDS 378	Seminar in History of Graphic Design .....	3
PHOT 385	Digital Computer Imagery I .....	3
GRDS 392	Cooperative Education in Graphic Design .....	3-6
GRDS 470	Internship in Graphic Design .....	1-6
GRDS 479	Professional Experiences in Design .....	3-6
GRDS 480*	Individualized Study/ Alternatives in Graphic Design ....	3
GRDS 481	Computer Applications in Graphic Design/Photography .....	3
	Electives (to be discussed with advisor) .....	3-6

\*To be either an internship or independent study in area or field of interest which relates to design and career goals.

## Painting concentration ..... 45

Required courses ..... 36

ART 115	Drawing I .....	3
ART 215	Drawing II .....	3
ART 230	Painting I .....	3
ART 330	Painting II .....	3
ART 372	Computer Applications .....	3
ART 403	Criticism .....	3
ART 410	Advanced Drawing .....	3
ART 434	Advanced Painting Studio .....	9
ART 475	Interdisciplinary Studio .....	6

Select 9 hours from the following (to be discussed with advisor) ..... 9

ART 375	Research Studio .....	3-6
ART 391	Internship .....	3-9
ART 400	Special Topics in Studio Art .....	3

ART 410	Advanced Drawing .....	3
ART 434	Advanced Painting Studio .....	3
ART 475	Interdisciplinary Studio .....	3
Photography/computer imagery concentration .....		42-45
Required courses .....		15-18
PHOT 281	Black and White Photography I .....	3
PHOT 282	Black and White Photography II .....	3
PHOT 380	History of Photography .....	3
PHOT 383	Color Photography I .....	3
PHOT 385	Computer Digital Imagery I .....	3-6
Select 27 hours from the following (to be discussed with advisor) .....		27
PHOT 381	Studio Photography I .....	3
PHOT 384	Photojournalism .....	3-6
PHOT 387	Multi-Media .....	3
PHOT 400	Special Topics in Photography/Computer Imagery .....	3
PHOT 480	Research in Photography .....	3-12
PHOT 481	Computer Applications in Graphic Design/ Photography .....	3
PHOT 484	Studio Photography II .....	3
PHOT 485	Color Photography II .....	3
PHOT 488	Internship in Photography .....	3-6
Printmaking concentration .....		45
Required courses .....		36
ART 115	Drawing I .....	3
ART 215	Drawing II .....	3
ART 260	Printmaking I .....	3
ART 361	Printmaking II .....	3
ART 372	Computer Applications .....	3
ART 403	Criticism .....	3
ART 410	Advanced Drawing .....	3
ART 464	Advanced Printmaking Studio .....	9
ART 475	Interdisciplinary Studio .....	6
Select 9 hours from the following (to be discussed with advisor) .....		9
ART 375	Research Studio .....	3-6
ART 391	Internship .....	3-9
ART 400	Special Topics in Studio Art .....	3
ART 410	Advanced Drawing .....	3
ART 464	Advanced Printmaking Studio .....	3
ART 475	Interdisciplinary Studio .....	3
Sculpture concentration .....		45
Required courses .....		36
ART 115	Drawing I .....	3
ART 215	Drawing II .....	3
ART 250	Sculpture I .....	3
ART 350	Sculpture II .....	3
ART 372	Computer Applications .....	3
ART 403	Criticism .....	3
ART 410	Advanced Drawing .....	3
ART 450	Advanced Sculpture Studio .....	9
ART 475	Interdisciplinary Studio .....	6
Select 9 hours from the following (to be discussed with advisor) .....		9
ART 375	Research Studio .....	3-6
ART 391	Internship .....	3-9
ART 400	Special Topics in Studio Art .....	3

ART 410	Advanced Drawing .....	3
ART 450	Advanced Sculpture Studio .....	3
ART 475	Interdisciplinary Studio .....	3

## Curriculum for a Teaching Field in Art Grades K-12

A student who wishes to earn a bachelor of arts in art education K-12 takes college required general studies courses (47 hours), fine arts core (12 hours), studio art and art theory (21 hours), methods and theory of teaching art (9 hours), education professional studies courses (30 hours), and electives to total 128 semester hours minimum. The major, outlined below, consists of studio courses, studio and art theory, and methods and theory of teaching art courses.

Note that art education majors are encouraged to take ART 104 Introduction to Visual Arts (for art majors, 3 credits), over ART 103 Introduction to Visual Arts (for non-majors, 2 credits). Students who enroll in ART 104 will take a total of 129 credits, while students who enroll in ART 103 will complete 128 credits on graduation.

Total semester hours required .....		42
Fine arts core requirements .....		33
ART 115	Drawing I .....	3
ART 140	Foundations of Design I .....	3
ART 170	Foundations of Design II .....	3
ART 203	Survey History of Western Art .....	3
ART 204	Contemporary Art .....	3
ART 230	Painting I .....	3
ART 250	Sculpture I .....	3
ART 361	Printmaking II .....	3
ART 403	Art Criticism and Aesthetics .....	3
GRDS 173	Graphic Design I .....	3
PHOT 281	Black and White Photography I .....	3

Methods and theory of teaching art requirements ..... 9

ARED 180	Inclusive Approaches to Art Education OR	
EDUC 360	Survey of Exceptional Children .....	3
ARED 345	Visual Thinking Skills .....	3
ARED 365	Art Education Inquiry .....	3

See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required). Special Methods of Teaching Art is EDUC 427.

Contact Person: Dr. K.B. Basseches, Frank Center A06, 304/876-5265.

## Curriculum for a Minor in Art

Total hours required .....	27
ART 140	Foundations of Design I ..... 3
ART 250	Sculpture I ..... 3
ART 115	Drawing I..... 3
ART 203	Survey History of Western Art ..... 3
ART 204	Contemporary Art ..... 3
ART 230	Painting I ..... 3
ART 260	Printmaking I ..... 3
PHOT 281	Black and White Photography I..... 3
GRDS 171	Graphic Design I..... 3

## Curriculum for a Minor in Graphic Design

Total hours required .....	24	
Total design courses .....	18	
ART 140	Foundations of Design I .....	3
ART 115	Drawing I .....	3
GRDS 171	Graphic Design I .....	3

GRDS 274	Graphic Design II .....	3
GRDS 276	Introduction to Computer Applications .....	3
GRDS 374	Typography .....	3
Select 6 hours from the following .....		6
GRDS 373	Digital Printing Technologies .....	3
GRDS 378	Seminar in the History of Graphic Design .....	3
GRDS 400	Special Topics in Graphic Design OR .....	3
GRDS 480	Individualized Study/ Alternatives in Graphic Design* .....	3
GRDS 481	Computer Applications in Graphic Design/Photography .....	3

\* To be either an internship or independent study in an area/field of interest that related to design and career goals.

## Curriculum for a Minor in Photography/Computer Imagery

Total semester hours required .....		24
ART 140	Foundations of Design I .....	3
PHOT 380	History of Photography .....	3
PHOT 281	Black and White Photography I .....	3
PHOT 282	Black and White Photography II .....	3
PHOT 381	Studio Photography I .....	3
PHOT 383	Color Photography I .....	3
PHOT 385	Computer Digital Imagery I .....	3
PHOT 387	Multi-Media .....	3

## ATHLETIC TRAINING

The Physical Education Department offers a comprehensive interdisciplinary, nonteaching minor in athletic training. Athletic training as a minor is open to students in any major who meet the selection criteria. The curriculum is designed to prepare students for graduate school in sports medicine and eventually qualifying them for certification by the National Athletic Trainers Association (NATA) or to serve as an athletic trainer in the public schools. The minor in athletic training is open to students in any major who meet the selection criteria.

### Selection Criteria

1. Candidates for the program should complete the application form by December of their sophomore year. Applications will be reviewed during the month of January and again in May.
2. Applicants must provide three letters of recommendation. It is desirable to have two letters from faculty and one from a physician, physical therapist, or athletic trainer.
3. Applicants must be in good academic standing and provide a transcript of courses completed and a statement of athletic training-related experiences.

## Curriculum for a Minor in Athletic Training

Total semester hours required .....		28
HLTH 103	Personal Health .....	3
HLTH 225	First Aid/CPR .....	3
ATHC 324	Care and Prevention of Athletic Injuries .....	3
FACS 318	Nutrition .....	3
PHED 328	Head, Trunk, Extremity Assessment .....	3
PHED 360	Athletic Training Practicum I .....	3
PHED 365	Athletic Training Practicum II .....	3
PHED 370	Applied Anatomy and Physiology .....	4
PHED 405	Applied Kinesiology .....	3

# BIOLOGY

The biology curricula enable students to build a knowledge base about their physical and biological universe; foster an attitude of inquiry; and develop a functional understanding of the process of science, the interrelatedness of the various scientific disciplines, and the interactions of science, society, and technology. The biology curricula also provide opportunities for students to develop a variety of laboratory, field, and technical skills vital to success in the pursuit of knowledge in biology. In addition to the above goals, the biology 9-12 teaching field complies with and endorses the conceptual framework of the Shepherd College Teacher Education Program and strives to produce teachers who are capable reflective problem solvers.

## Curriculum for a Major in Biology

Specific general studies requirements

CHEM 207, 207L	General Chemistry and Lab .....	4
CHEM 209, 209L	General Chemistry and Lab .....	4
MATH 205	Calculus with Applications OR	
MATH 314	Statistics .....	3-4

NOTE: The prerequisite for MATH 205 is competence equivalent to successful completion of MATH 108 and the prerequisite for MATH 314 is competence equivalent to successful completion of MATH 105.

Total hours required .....46-49

Required biology courses ..... 30-33

BIOL 208	Plants as Organisms .....	4
BIOL 209	Animals as Organisms .....	4
BIOL 305	Cell Biology .....	4
BIOL 394	Principles of Biological Research .....	3
BIOL 344	Genetics and Evolution .....	4
BIOL 406	Developmental Biology .....	4
BIOL 420	General Ecology .....	4
BIOL 415	Biological Research OR	
BIOL 425	Internship in Biology .....	3-6

Elective biology courses ..... 8

Any courses numbered BIOL 302 through BIOL 450 except BIOL 350

Required related courses ..... 8

PHYS 201, 201L	College Physics and Lab AND	
PHYS 202, 202L	College Physics and Lab OR .....	8
PHYS 221, 221L	General Physics and Lab AND	
PHYS 222, 222L	General Physics and Lab .....	8

## Curriculum for a Minor in Biology

Option I. Traditional Track

Specific general studies requirements

CHEM 207, 207L	General Chemistry and Lab .....	4
CHEM 209, 209L	General Chemistry and Lab .....	4

Total hours required ..... 24

Required biology courses ..... 20

BIOL 208	Plants as Organisms .....	4
BIOL 209	Animals as Organisms .....	4
BIOL 305	Cell Biology .....	4

Any two of the following:

BIOL 344	Genetics and Evolution .....	4
BIOL 406	Developmental Biology .....	4
BIOL 420	General Ecology .....	4

Elective biology courses ..... 4

BIOL 302	Microbiology .....	4
BIOL 310	Plant Pathology .....	3

BIOL 313	Invertebrate Natural History .....	4
BIOL 324	Plant Taxonomy I Fall Flora .....	2
BIOL 325	Plant Taxonomy II Spring Flora .....	1
BIOL 332	Comparative Anatomy .....	4
BIOL 344	Genetics and Evolution .....	4
BIOL 401	Histology .....	4
BIOL 404	Immunology .....	4
BIOL 406	Developmental Biology .....	4
BIOL 410	Plant Physiology .....	3
BIOL 412	Animal Physiology .....	3
BIOL 416	Molecular Biology .....	4
BIOL 418	Virology .....	4
BIOL 420	General Ecology .....	4

### Option II. Molecular Track

Specific general studies requirements

CHEM 207, 207L	General Chemistry and Lab .....	4
CHEM 209, 209L	General Chemistry and Lab .....	4

Required biology courses ..... 27

BIOL 208	Plants as Organisms .....	4
BIOL 209	Animals as Organisms .....	4
BIOL 305	Cell Biology .....	4
BIOL 302	Microbiology .....	4
BIOL 344	Genetics and Evolution .....	4
BIOL 394	Principles in Biological Research .....	3
BIOL 404	Immunology OR	
BIOL 416	Molecular Biology OR	
BIOL 418	Virology .....	4

NOTE: For the minor, the student must also take any 3 credit hour mathematics course numbered MATH 108 or above, other than MATH 111 or MATH 101.

## Curriculum for a Biology Teaching Field Grades 9-12

Specific general studies requirements

CHEM 207, 207L	General Chemistry and Lab .....	4
CHEM 209, 209L	General Chemistry and Lab .....	4
MATH 205	Calculus with Applications .....	4

Total hours required ..... 48

Required courses

A. Interdisciplinary core ..... 23

BIOL 208	Plants as Organisms .....	4
BIOL 209	Animals as Organisms .....	4
GSCI 301	Geology .....	4
PHYS 101, 201L	College Physics I and Lab .....	4
PHYS 202, 202L	College Physics II and Lab .....	4
MATH 314	Statistics .....	3

B. Biology 9-12 specialization ..... 25

BIOL 225	Human Anatomy and Physiology .....	3
BIOL 226	Human Anatomy and Physiology .....	3
BIOL 302	Microbiology .....	4
BIOL 305	Cell Biology .....	4
BIOL 344	Genetics and Evolution .....	4
BIOL 394	Principles of Biological Research .....	3
BIOL 420	General Ecology .....	4

Note Concerning Math Requirement: The prerequisite for MATH 205 is mathematical competence equivalent to the successful completion of MATH 108 Precalculus.

Other Requirements: Although one may declare secondary education with a specialization in

biology 9–12 as a major upon admission to the College, to be officially admitted to the Shepherd College Teacher Education Program and pursue this teaching field, the student must meet the following criteria as well as those criteria that apply to all teaching specializations:

1. The student must have completed BIOL 208 Plants as Organisms, BIOL 209 Animals as Organisms, CHEM 207 and 209 General Chemistry, CHEM 207L and 209L General Chemistry Lab, or their equivalents with a grade of C or better in each course.
2. The student must have completed a minimum of 24 semester hours of academic work at Shepherd College with an overall GPA of at least 2.5 and a GPA of at least 2.5 in this specialization.

See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required). Special Methods of Teaching Sciences is EDUC 423.

Retention in and completion of this program requires the student to meet retention, admission to student teaching, and certification standards set by the Professional Education Unit Council. All of the standards for this program can be found in *Information and Planning Handbook for Students Pursuing the Biology 9–12, Chemistry 9–12, or General Science 5–12 Specializations*.

**Contact Person:** Dr. Jason Best, Byrd Science Center 115, 304/876-5331.

## BUSINESS ADMINISTRATION

### Curriculum for a Major in Business Administration with a Concentration in General Business

The concentration in general business provides students with flexibility in the job market. It prepares generalists who should be able to meet changes in the specific employment needs of the business community.

Specific general studies requirements:

ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for a major .....		48
Business core requirements .....		36

CIS 102	Microcomputer Applications .....	3
ACCT 201, 202	Introductory Accounting I and II .....	6
ECON 206	Principles of Microeconomics .....	3
BADM 224	Business Statistics .....	3
BADM 212	Business Law I .....	3
BADM 300	Introduction to Financial Management .....	3
BADM 310	Principles of Management .....	3
BADM 319	Business Ethics .....	3
BADM 340	Marketing .....	3
BADM 359	International Business .....	3
BADM 407	Business Strategy and Policy .....	3

General business requirements ..... 12

One of the following accounting courses:

ACCT 305	Managerial Accounting .....	3
ACCT 329	Intermediate Accounting I .....	3
ACCT 335	Income Tax .....	3
ACCT 336	Cost Accounting .....	3

One of the following marketing courses:

BADM 345	Business Communications .....	3
BADM 350	Retailing .....	3
BADM 365	Promotional Strategy .....	3
BADM 375	Strategic Marketing .....	3
BADM 395	Consumer Behavior .....	3
BADM 405	Marketing Research .....	3

One of the following management courses:

BADM 324	Labor Problems/Collective Bargaining .....	3
BADM 323	Human Resource Management .....	3
BADM 345	Business Communications .....	3
BADM 413	Quantitative Methods .....	3
PSYC 321	Industrial/Organizational Psychology .....	3
One additional upper division (300 or above) three hour course from ACCT, BADM, or ECON.		
NOTE: Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.		
Students should complete MATH 154, ACCT 201, ACCT 202, CIS 102, BADM 224, BADM 212, ECON 205, and ECON 206 during their first two years of study.		

**Curriculum for a Major in Business Administration with a Concentration in Entrepreneurship and Small Business Management**

The concentration in entrepreneurship and small business management is designed to provide students with the knowledge and skills to facilitate the creation, development, and operational management of small businesses.

Specific general studies requirements:		
ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for the major .....		48
Business core requirements .....		36
CIS 102	Microcomputer Applications .....	3
ACCT 201, 202	Introductory Accounting I and II.....	6
ECON 206	Principles of Microeconomics .....	3
BADM 212	Business Law I .....	3
BADM 224	Business Statistics .....	3
BADM 300	Introduction to Financial Management .....	3
BADM 310	Principles of Management .....	3
BADM 319	Business Ethics .....	3
BADM 340	Marketing .....	3
BADM 359	International Business .....	3
BADM 407	Business Strategy and Policy .....	3
Entrepreneurship and small business management concentration requirements .....		12
BADM 311	Small Business Management .....	3
BADM 323	Human Resource Management .....	3
BADM 350	Retailing .....	3
BADM 411	Entrepreneurship and New Venture Formation .....	3
Note: Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.		

**Curriculum for a Major in Business Administration with a Concentration in Finance**

The finance concentration emphasizes evaluation and control of finance programs in banking and other financial institutions as well as studying the regulatory agencies responsible for overseeing the institutions.

Specific general studies requirements:		
ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for the major .....		48
Business core requirements .....		36
CIS 102	Microcomputer Applications .....	3
ACCT 201, 202	Introductory Accounting I and II.....	6
ECON 206	Principles of Microeconomics .....	3
BADM 212	Business Law I .....	3
BADM 224	Business Statistics .....	3
BADM 300	Introduction to Financial Management .....	3

BADM 310	Principles of Management .....	3
BADM 319	Business Ethics .....	3
BADM 340	Marketing .....	3
BADM 359	International Business .....	3
BADM 407	Business Strategy and Policy .....	3
Finance concentration requirements .....		9
BADM 302	Intermediate Financial Management .....	3
BADM 301	Money Markets and Financial Institutions OR	
ECON 305	Money and Banking .....	3
BADM 425	Investments .....	3
Required elective .....		3
BADM 325	International Finance OR	
BADM 308	Financial Planning and Insurance .....	3

## Curriculum for a Major in Business Administration with a Concentration in Human Resource Management

The concentration in human resource management (HRM) is designed to provide students with the knowledge and skills to pursue, acquire, and function in entry level positions in HRM areas of responsibility.

Specific general studies requirements:

ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for a major .....		48
Business core requirements .....		36
CIS 102	Microcomputer Applications .....	3
ACCT 201 and 202	Introductory Accounting I and II .....	6
ECON 206	Principles of Microeconomics .....	3
BADM 212	Business Law I .....	3
BADM 224	Business Statistics .....	3
BADM 300	Introduction to Financial Management .....	3
BADM 310	Principles of Management .....	3
BADM 319	Business Ethics .....	3
BADM 340	Marketing .....	3
BADM 359	International Business .....	3
BADM 407	Business Strategy and Policy .....	3
Human resource management requirements .....		12
BADM 320	Employment Law .....	3
BADM 323	Human Resource Management .....	3
BADM 324	Labor Problems/Collective Bargaining .....	3
PSYC 321	Industrial/Organizational Psychology .....	3

Note: Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.

## Curriculum for a Major in Business Administration with a Concentration in Management

The concentration in management is designed to provide students with knowledge and skills in solving both quantitative and behavioral problems associated with the management functions of planning, organizing, leading and controlling.

Specific general studies requirements:

ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for a major .....		48
Business core requirements .....		36
CIS 102	Microcomputer Applications .....	3
ACCT 201, 202	Introductory Accounting I and II .....	6

ECON 206	Principles of Microeconomics .....	3
BADM 212	Business Law I .....	3
BADM 224	Business Statistics .....	3
BADM 300	Introduction to Financial Management .....	3
BADM 310	Principles of Management .....	3
BADM 319	Business Ethics .....	3
BADM 340	Marketing .....	3
BADM 359	International Business .....	3
BADM 407	Business Strategy and Policy .....	3
Management concentration requirements .....		12

Group I Business/Management Courses

Select one of the following courses, 3 hours:

BADM 320	Employment Law .....	3
BADM 323	Human Resource Management .....	3
BADM 324	Labor Problems/Collective Bargaining .....	3
PSYC 321	Industrial/Organizational Psychology .....	3
BADM 345	Business Communications .....	3
BADM 385	Business Externship .....	3
BADM 392	Business Co-op .....	3

Group II Quantitative Courses

Select one of the following courses, 3 hours:

BADM 413	Quantitative Methods .....	3
BADM 414	Operations and Production Management .....	3
BADM 205	Calculus with Applications .....	4

Group III Economics Courses

Select one of the following courses, 3 hours:

ECON 301	Intermediate Microeconomics .....	3
ECON 303	Managerial Economics .....	3
ECON 350	Government and Business .....	3

Group IV Accounting Courses

Select one of the following courses, 3 hours:

ACCT 305	Managerial Accounting .....	3
ACCT 336	Cost Accounting .....	3

Students should complete MATH 154, ACCT 201, ACCT 202, CIS 102, BADM 224, BADM 212, ECON 205, and ECON 206 during their first two years of study.

Note: Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.

Curriculum for a Major in Business Administration with a Concentration in Marketing

Emphasis on problems of marketing including production controls, transportation, merchandising, purchasing, and sales has created expanding job opportunities in this field.

Specific general studies requirements:

ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for a major .....		48
Business core requirements .....		36
CIS 102	Microcomputer Applications .....	3
ACCT 201, 202	Introductory Accounting I and II .....	6
ECON 206	Principles of Microeconomics .....	3
BADM 212	Business Law I .....	3
BADM 224	Business Statistics .....	3
BADM 300	Introduction to Financial Management .....	3
BADM 310	Principles of Management .....	3
BADM 319	Business Ethics .....	3
BADM 340	Marketing .....	3

BADM 359	International Business .....	3
BADM 407	Business Strategy and Policy .....	3
Marketing concentration requirements .....		12
ACCT 305	Managerial Accounting .....	3
BADM 375	Strategic Marketing .....	3
BADM 395	Consumer Behavior .....	3
BADM 405	Marketing Research .....	3
Students should complete MATH 154, ACCT 201, ACCT 202, CIS 102, BADM 224, BADM 212, ECON 205, and ECON 206 during their first two years of study.		
Note: Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.		

## Curriculum for a Minor in Business Administration

Specific general studies requirements		
ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for a minor .....		24
ACCT 201, 202	Introductory Accounting I and II .....	6
ECON 206	Principles of Microeconomics .....	3
BADM 224	Business Statistics* .....	3
BADM 212	Business Law I .....	3
BADM 300	Introduction to Financial Management .....	3
BADM 310	Principles of Management .....	3
BADM 340	Marketing .....	3
*Students not majoring in economics may, with the permission of the chair of the Department of Business Administration, substitute MATH 314 Statistics for BADM 224. Students required to take MATH 314 in their major will substitute a business elective ACCT, BADM, ECON or CIS 300 or higher.		
NOTE: Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.		

## Curriculum for a Teaching Field in Business Education Grades 5-12

The following curriculum prepares teachers of business subjects for middle schools and high schools, as well as vocational-technical schools. The four-year program leads to certification in the field of business education.

Specific general studies requirements		
ECON 123	Contemporary Economics OR	
ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for teaching field .....		51
ACCT 201	Introductory Accounting I .....	3
BADM 212	Business Law I .....	3
BADM 224	Business Statistics .....	3
BADM 280	Business and Society .....	3
BADM 310	Principles of Management .....	3
BADM 340	Marketing .....	3
BADM 345	Business Communications .....	3
BADM 350	Retailing .....	3
BADM 380	International Tourism and Hospitality .....	3
BADM 385	Business Externship .....	3
BSED 104	Document Processing* .....	3
BSED 250	Introduction to Office Technology .....	3
BSED 329	Office Systems Software .....	3
BSED 380	Desktop Publishing .....	3
EDUC 360	Survey of Exceptional Children .....	3
HOST 111	Introduction to Hospitality Industry .....	3
* Student must take BSED 103 Keyboarding if he/she has no keyboarding skill.		
OFTC 150	Troubleshooting .....	3

See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required). Special Methods of Teaching Business Education is EDUC 430.

Contact Person: Dr. Barbara Beard, White Hall 208, 304/876-5351.

## CHEMISTRY

The Department of Chemistry offers a B.S. degree in chemistry. There are three concentrations—the traditional, the biochemistry, and the environmental chemistry concentrations, the former emphasizing the more quantitative, the second the more biological aspects of chemistry, and the latter the aspects related to the environment. Training in chemistry is a good foundation for careers in fields as diverse as industrial chemistry, environmental science, forensic science, and biotechnology. The biochemistry track provides excellent preparation for students who wish to enter medical, dental, and other health-related professional schools.

Graduates of the program have obtained jobs as chemists and technicians in industrial and government laboratories or have entered graduate programs at leading universities in chemistry, chemical engineering, medicine, and pharmacology.

The chemistry curricula foster an attitude of inquiry, develop an understanding of the process of science, the interrelatedness of scientific disciplines, and the interactions of science, society, and technology. The chemistry curricula also provide opportunities for students to develop a variety of laboratory and technical skills important to the chemical profession.

In addition to the above goals, the chemistry 9–12 teaching field complies with and endorses the conceptual framework of the Shepherd College Teacher Education Program and strives to produce teachers who are reflective problem solvers.

### Curriculum for a Major in Chemistry—Traditional Concentration

Specific general studies requirements .....	8
CHEM 207, 207L    General Chemistry and Lab .....	4
CHEM 209, 209L    General Chemistry and Lab .....	4
Total hours required .....	49
Core courses .....	35
CHEM 315, 315L    Organic Chemistry I and Lab .....	4
CHEM 316, 316L    Organic Chemistry II and Lab .....	4
CHEM 321, 321L    Analytical Chemistry and Lab .....	4
CHEM 322, 322L    Instrumental Analysis and Lab .....	4
CHEM 325            Computers in Science .....	3
CHEM 327, 327L    Solution Chemistry and Lab .....	4
CHEM 450            Research in Chemistry .....	4
PHYS 201, 201L    College Physics I and Lab AND	
PHYS 202, 202L    College Physics II and Lab OR	
PHYS 221, 221L    General Physics I and Lab AND	
PHYS 222, 222L    General Physics II and Lab .....	8
Additional required courses .....	14
MATH 207            Calculus I .....	4
MATH 208            Calculus II .....	4
CHEM 427, 427L    Spectroscopy and Advanced Physical Chemistry Lab .....	4
CHEM 428            Thermodynamics .....	2

### Curriculum for a Major in Chemistry—Biochemistry Concentration

Specific general studies requirements .....	8
CHEM 207, 207L    General Chemistry and Lab .....	4
CHEM 209, 209L    General Chemistry and Lab .....	4
Total hours required .....	49
Core courses .....	35
CHEM 315, 315L    Organic Chemistry I and Lab .....	4
CHEM 316, 316L    Organic Chemistry II and Lab .....	4

CHEM 321, 321L	Analytical Chemistry and Lab .....	4
CHEM 322, 322L	Instrumental Analysis and Lab .....	4
CHEM 325	Computers in Science .....	3
CHEM 327, 327L	Solution Chemistry and Lab .....	4
CHEM 450	Research in Chemistry .....	4
PHYS 201, 201L	College Physics I and Lab AND	
PHYS 202, 202L	College Physics II and Lab OR	
PHYS 221, 221L	General Physics I and Lab AND	
PHYS 222, 222L	General Physics II and Lab .....	8
Additional required courses .....		15-16

MATH 207	Calculus I AND	
MATH 208	Calculus II OR	
MATH 205	Calculus with Applications AND	
MATH 314	Statistics .....	7-8
CHEM 329, 329L	Biochemistry I and Lab .....	4
CHEM 330, 330L	Biochemistry II and Lab .....	4

\*NOTE: Students in biochemistry concentration must minor in Biology, Option II: Molecular Track.

## Curriculum for a Comprehensive Major in Chemistry-Environmental Chemistry Concentration

Total hours required (including free electives) .....	128
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### Specific general studies requirements

MATH 314	Statistics .....	3
PHYS 201, 201L	College Physics I and Lab AND	
PHYS 202, 202L	College Physics II and Lab OR	
PHYS 221, 221L	General Physics I and Lab AND	
PHYS 222, 222L	General Physics II and Lab .....	8

Core courses .....	42
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CHEM 207, 207L	General Chemistry I and Lab .....	4
CHEM 209, 209L	General Chemistry II and Lab .....	4
CHEM 315, 315L	Organic Chemistry I and Lab .....	4
CHEM 316, 316L	Organic Chemistry II and Lab .....	4
CHEM 321, 321L	Analytical Chemistry and Lab .....	4
CHEM 322, 322L	Instrumental Analysis and Lab .....	4
CHEM 325	Computers in Science .....	3
CHEM 327, 327L	Solution Chemistry and Lab .....	4
CHEM 329, 329L	Biochemistry I and Lab .....	4
CHEM 333	Environmental Chemistry .....	3
CHEM 450	Research in Chemistry (Environmental) .....	4

Environmental science concentration requirements .....	13
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ENVS 201	Dimensions of Environmental Science I .....	3
ENVS 305	Environmental Law and Regulations OR	
ENVS 306	Environmental Policy .....	3
ENVS 308	Physical Resource Management .....	3
ENVS 401	Conservation Ecology .....	4

Choose two of the following courses .....	8
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ENVS 440	Solid Waste/Air Quality Management and Lab .....	4
ENVS 441	Hydrology and Lab .....	4
GSCI 301	Physical Geology .....	4
GSCI 303	Meteorology .....	4

Additional requirements .....	8
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BIOL 102	General Biology II .....	4
MATH 204	Calculus with Applications OR	
MATH 207	Calculus I .....	4

## Curriculum for a Minor in Chemistry

Total hours required .....	24
Required chemistry courses .....	16
CHEM 207, 207L      General Chemistry I and Lab .....	4
CHEM 209, 209L      General Chemistry II and Lab .....	4
CHEM 315, 325L      Organic Chemistry I and Lab .....	4
CHEM 316, 316L      Organic Chemistry II and Lab .....	4
Elective chemistry courses .....	8
Any chemistry courses numbered CHEM 301 or higher, except CHEM 311 Chemical Pharmacology	

## Curriculum for a Teaching Field in Chemistry Education Grades 9-12

Specific general studies requirements .....	11
CHEM 207, 207L      General Chemistry and Lab .....	4
CHEM 209, 209L      General Chemistry and Lab .....	4
MATH 314              Statistics .....	3
Total hours required .....	49
A. Interdisciplinary core .....	20
BIOL 208, 209      Plants as Organisms and Animals as Organisms .....	8
GSCI 301              Geology .....	4
PHYS 201, 201L      College Physics I and Lab .....	4
PHYS 202, 202L      College Physics II and Lab .....	4
B. Chemistry 9-12 specialization .....	29
CHEM 315, 315L      Organic Chemistry I and Lab .....	4
CHEM 316, 316L      Organic Chemistry II and Lab .....	4
CHEM 321, 321L      Analytical Chemistry and Lab .....	4
CHEM 327, 327L      Solution Chemistry .....	4
CHEM 329              Biochemistry I .....	3
CHEM 330              Biochemistry II .....	3
CHEM xxx              Elective in Chemistry .....	3
MATH 205              Calculus with Applications .....	4

**Note Concerning Elective in Chemistry:** The required elective must be an upper division CHEM course approved by the academic advisor. Strongly recommended courses are CHEM 301 Inorganic Chemistry, CHEM 322 and 322L Instrumental Analysis, and CHEM 325 Computers in Science.

**Note Concerning Math Requirement:** The prerequisite for MATH 205 is mathematical competence equivalent to the successful completion of MATH 108 Precalculus.

**Other Requirements:** Although a student may declare secondary education with a specialization in chemistry education 9-12 as a major upon admission to the College, to be officially admitted to the Shepherd College Teacher Education Program and pursue this teaching field, the student must meet the following criteria as well as those criteria that apply to all teaching specializations:

1. The student must have completed BIOL 208 Plants as Organisms, BIOL 209 Animals as Organisms, CHEM 207 and 209 General Chemistry, CHEM 207L and 209L General Chemistry Lab or their equivalents with a grade of C or better in each course.
2. The student must have completed a minimum of 24 semester hours of academic work at Shepherd College with an overall GPA of at least 2.5 and a GPA of at least 2.5 in this specialization.

Retention in and completion of this program require the student to meet retention, admission to student teaching, and certification standards set by the Professional Education Unit Council. All of the standards for this program can be found in *Information and Planning Handbook for Students Pursuing the Biology 9-12, Chemistry 9-12, and General Science 5-12 Specializations*. See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required). Special Methods of Teaching Sciences in EDUC 423.

**Contact Person:** Dr. Jason Best, Byrd Science Center 115, 304/876-5331.

## COACHING-ATHLETIC

One of the major problems facing athletics is the lack of professional training of coaches at all levels. The growth of competitive athletics has caused the demand for coaches to expand beyond the supply of physical educators, and those outside of physical education have received little or no training in coaching, conditioning, or care of injuries. To coach in public school, West Virginia law states that "all coaches should hold a teaching certificate and must be employed by the district as a regular or part-time teacher." This law has little regard for the training of coaches or the nature of their non-coaching duties. The following coaching minor has been approved at Shepherd College to help institute a quality program for coaches.

### Minor in Coaching

Total hours required for a minor .....	24
Required courses .....	18
HLTH 225                      First Aid/CPR .....	3
ATHC 324                      Care and Prevention of Athletic Injuries .....	3
PHED 380                      Perceptual Motor Learning .....	3
ATHC 403                      Principles of Coaching .....	3
ATHC 405                      Psychology of Coaching .....	3
ATHC 450                      Coaching Internship .....	3
Choose two of the following .....	6
ATHC 350                      Coaching of Football .....	3
ATHC 351                      Coaching of Basketball .....	3
ATHC 352                      Coaching of Baseball .....	3
ATHC 353                      Coaching of Tennis .....	3

## COMPUTER AND INFORMATION SCIENCES

### Curriculum for a Comprehensive Major in Computer and Information Sciences

This comprehensive program provides students with the concepts and skills necessary to develop and manage state-of-the-art computer systems. The interdisciplinary nature of the program reflects the importance of computer and information sciences in virtually every kind of organization. Graduates of the program will be prepared to apply their knowledge professionally and to pursue graduate training.

Total hours required (including free electives) .....	128
Core requirements .....	29
CIS 102                      Microcomputer Applications .....	3
CIS 104                      Introduction to Computer and Information Sciences .....	3
CIS 211                      Computer Language Concepts .....	4
CIS 234                      Introduction to Networking .....	3
CIS 314                      Advanced Computer Language Concepts .....	4
CIS 321                      Data and File Structures .....	4
CIS 386                      Computer Organization .....	4
CIS 388                      Database Management Systems .....	4

Computer programming and information systems (CPIS) concentration .....

Required business and mathematics courses .....	18
MATH 314                      Statistics .....	3
ACCT 201                      Introductory Accounting I .....	3
ACCT 202                      Introductory Accounting II .....	3
BADM 310                      Principles of Management .....	3
BADM 345                      Business Communications .....	3
BADM 413                      Quantitative Methods .....	3
Required CIS courses .....	9
CIS 287                      Systems Analysis and Design .....	3
CIS 302                      Windows Programming .....	3

CIS 417	Advanced Applications Programming .....	3
Required electives .....		12
Any CIS course numbered CIS 200 or above		
Computer science (CS) concentration .....		44
Required mathematics courses .....		17
MATH 207	Calculus I .....	4
MATH 208	Calculus II .....	4
MATH 254	Discrete Mathematics .....	3
MATH 307	Introduction to Linear Algebra .....	3
MATH 321	Probability and Statistics OR	
MATH 314	Statistics .....	3
Required CIS courses .....		15
CIS 331	Programming Languages .....	3
CIS 390	Operating Systems .....	3
CIS 421	Computer Architecture .....	3
CIS 431	Algorithms and Data Structures .....	3
CIS 487	Software Engineering .....	3
Required electives .....		12
Any CIS course numbered CIS 200 or above		
Networking and data communications (NDC) concentration .....		43
Required mathematics courses .....		6
MATH 254	Discrete Mathematics .....	3
MATH 314	Statistics .....	3
Required CIS courses .....		25
CIS 287	Systems Analysis and Design .....	3
CIS 390	Operating Systems .....	3
CIS 418	Management Information Systems .....	3
CIS 419	Data Communications and Local Area Networks .....	3
CIS 421	Computer Architecture .....	3
CIS 434	Inter-Intra Networking .....	3
CIS 423	Server Operating Systems .....	3
CIS 486	Network Security .....	4
Required electives .....		12
Any CIS course numbered 200 or above.		

\*MATH 154 in the CPIS and NDC concentrations and MATH 108 in the CS concentration will fulfill the general studies mathematics requirement.

Curriculum for a Minor in Computer and Information Sciences

When selecting a minor, the student must be aware that 45 hours of upper division credits are required for graduation.

Total hours required for a minor .....

22

A total of 22 credit hours in CIS is required. Of these, 9 credit hours must be upper division credits.

ECONOMICS

The study of economics helps develop skills for understanding how individuals, firms, a nation or groups of nations make economic choices. The programs help prepare students for careers in business, finance, governmental service, law, graduate studies, and research.

Students majoring or minoring in economics must take ECON 205 Principles of Macroeconomics for their general studies economics requirement and MATH 154 Finite Mathematics for their general studies mathematics requirement.

## Curriculum for a Major in Economics

Specific general studies requirements:

ECON 205	Principles of Macroeconomics .....	3
MATH 154	Finite Mathematics .....	3
Total hours required for a major .....		30
Required courses .....		15
BADM 224	Business Statistics .....	3
ECON 206	Principles of Microeconomics .....	3
ECON 301	Intermediate Microeconomics .....	3
ECON 302	Intermediate Macroeconomics .....	3
ECON 450	Senior Seminar in Economics .....	3
Electives from the following courses .....		15
BADM 413	Quantitative Methods .....	3
ECON 303	Managerial Economics .....	3
ECON 304	History of Economic Thought .....	3
ECON 305	Money and Banking .....	3
ECON 310	Public Finance .....	3
ECON 320	Urban Economics .....	3
ECON 325	International Finance .....	3
ECON 326	International Trade .....	3
ECON 330	Economics of Developing Countries .....	3
ECON 350	Government and Business .....	3
ECON 392	Cooperative Education .....	3
HIST 311	Economic History of the United States .....	3
MATH 205	Calculus with Applications .....	4

NOTE: Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.

## Curriculum for a Minor in Economics

Total hours required for a minor .....		15
Required courses* .....		6
ECON 301	Intermediate Microeconomics .....	3
ECON 302	Intermediate Macroeconomics .....	3
Elective hours from the following courses* .....		9
BADM 413	Quantitative Methods .....	3
ECON 303	Managerial Economics .....	3
ECON 304	History of Economic Thought .....	3
ECON 305	Money and Banking .....	3
ECON 310	Public Finance .....	3
ECON 320	Urban Economics .....	3
ECON 325	International Finance .....	3
ECON 326	International Trade .....	3
ECON 330	Economics of Developing Countries .....	3
ECON 350	Government and Business .....	3
ECON 450	Senior Seminar in Economics .....	3
HIST 311	Economic History of the United States .....	3
MATH 205	Calculus with Applications .....	4

\*Some of these courses have as a prerequisite, BADM 224 and ECON 206.

NOTE: Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.

## EDUCATION

### Philosophy and Theme

The teacher education program faculty members believe that in order to be effective in today's school, a teacher must be knowledgeable, possess a professional disposition, and conduct teaching/learning experiences that ensure the development of all children's abilities to be critical participants in and productive members of a democratic society. The professional education unit

faculty members have agreed that a teacher education program at Shepherd College that enables prospective teachers to acquire the above characteristics will be based on the following philosophical position:

The teacher education program faculty members are committed to the idea that knowledge enables one to make informed choices, to actively participate in the shaping of one's own and life and the shaping of the social, cultural, political, and economic structures of a democratic society. Education should empower all students and teachers to do this. Our purpose is to facilitate the development of prospective teachers who demonstrate the willingness and capacity for a pedagogy that truly empowers all P-12 students. The schooling context is very complex and characterized by a significant degree of ambiguity. This ambiguous complexity of the teaching context precludes a formulaic approach to teaching. So, the emphasis is on the prospective teacher developing a philosophy and a set of principles that guide practice and the reflective process of problem solving. The teacher must be able to function in this complex and ambiguous context in a reflective manner; identifying problems, framing them, considering alternative solutions and choosing and implementing courses of action. The criteria for the assessment of effective teaching must include not only curricular and pedagogical concerns but also the ethical dimensions of teaching/learning. Schooling is not done to students, it is done with students.

Consistent reflection of the nature and practice of education is a hallmark of a critically-thinking teacher. Consequently, the chosen theme of the teacher education program at Shepherd College is Teacher as Reflective Problem Solver (TARPS). We have established a framework for the development of reflective dispositions. In order to effectively respond to the range of concerns found in today's classrooms, a teacher needs to be concurrently reflective across three field of consideration: action, interpretation, and critical reflection. The effective teacher examines his/her action and is concerned with the effective application of pedagogical knowledge and strategies to achieve stated educational goals for every child. This action is subject to interpretation. Here the teacher explicates and justifies the assumptions and predispositions that underlie his/her teaching/learning activity. During the process of critical reflection, the teacher assesses the adequacy of the educational goals towards which the educational experience leads and incorporates moral and ethical criteria in assessing the outcomes of teaching/learning activity.

In recognition of the rapidly increasing knowledge base for teaching and teacher education and the critical demand for excellent and effective teachers, the faculty members in teacher education continually evaluate the curriculum and instructional strategies. This has led to revisions in the teacher education program. This reflective problem solving approach will lead to further changes that strengthen the teacher education program at Shepherd College. It is important that students consult their specialization handbook to become familiar with the most recent and/or applicable revisions and requirements.

### Certification Areas

Shepherd College offers the bachelor of arts in elementary education and the bachelor of arts in secondary education degrees which may lead to certification in elementary and secondary education. Shepherd College offers specializations in teacher education that lead to certification in a variety of elementary and secondary education areas.

### Specializations

The following specializations are offered:

- Art Education K-12
- Biology Education 9-12
- Business Education 9-12
- Chemistry Education 9-12
- Elementary Education Multi-subjects K-6
- Early Education PreK
- English Education 5-12, 5-9
- Family and Consumer Science Education 5-12
- General Science Education 5-12

Health Education 5-12

Mathematics Education 5-12, General Mathematics through Algebra I Education 5-9

Music Education K-12

Physical Education K-12

Social Studies Education 5-12, 5-9

Contact Person: Dr. Douglas Kennard, 304/876-5330 or Department of Education, Knutti Hall 108, 304/876-5305.

## Policies and Procedures

### General Information

A student who wishes to pursue a teacher education degree should plan an academic program to be followed for the time of matriculation. This will include three components: general studies, specialty studies, and professional studies. The general studies courses are required of all Shepherd graduates and may be found in the *Catalog* under that heading. The specialty studies courses prepare students to teach in the certification field and they are listed alphabetically by specialization throughout the *Catalog*. The professional studies courses prepare students in abilities common to teachers irrespective to their teaching specialization.

Admission to Shepherd College does not guarantee admission to teacher education. Selection into teacher education requires, at the least, meeting common minimum standards across specialization areas and particular standards set by specific specialization areas. Admission may be denied or reversed for any student whose performance fails to meet these standards. Written specification of details of the common minimum standards may be obtained through the Department of Education Office.

Specific specialization and endorsement policies and procedures are published in individual specialization handbooks available from an advisor or specialization coordinator. These handbooks should be consulted for the areas in which you are seeking certification. The most recent requirements for each specialization are found in the handbooks.

If program space should be limited, those students demonstrating the highest standards will be given preference. All candidates should note that meeting all the objective standards but failing to gain the confidence of the faculty will not be sufficient. Students exhibiting habits associated with reflectiveness, dependability, honesty, cooperativeness, diligence, and achievement will merit such confidence.

Students should note that an education (professional education and specialty studies courses) GPA of 2.5 and an overall GPA of 2.5 are the minimums required for admission to the teacher education program and for student teaching. A GPA of only 2.5 is weak and could be interpreted as detracting from promise for teaching.

In fall 1990 the following specific policy became effective: A student who has been convicted of a felony will be denied admission to the teacher education program.

The teacher education program does not discriminate against students having disabilities as long as those conditions do not interfere with the capacity to acquire the ability and knowledge needed for performing all the activities required of teachers. All prospective students should be aware that majoring in teacher education entails the responsibility for demonstrating ability to teach in addition to, but not in place of, demonstrating knowledge about teaching.

## Selection and Screening of Candidates for Teacher Education

The following policies and procedures outline the elements common to all specialization areas. Students should consult their advisors about particular requirements for their own specialization of interest.

### Admission to Program (Juncture 1 Review)

Eligibility for admission as a student into the teacher education program include but are not limited to:

1. Student completes and submits application for Juncture I Review to the Department of Education Office, 108 Knutti Hall. To be eligible for admission to the teacher education program (TEP) the student must:
  - A. Have as an official academic advisor a faculty member in the Department of

- Education if seeking admission to the elementary teacher education program or, if seeking admission to a secondary specialization, the specialization coordinator of the specialization field or his/her designee;
- B. If adding an additional teaching field, have as an official academic advisor a faculty member in the Department of Education. If seeking admission to the elementary education program or if seeking admission to a secondary specialization, have as an official academic advisor the specialization coordinator of the specialization field or his/her designee;
  - C. Have completed EDUC 150, EDUC 200, and EDUC 320 with no grade lower than C;
  - D. Have passed all sections of the PPST or provide official proof of exemption;
  - E. Have earned an overall GPA of 2.5 on at least 24 degree credits taken at Shepherd College. Transfer students must have earned an overall GPA of 2.5 and an earned GPA of 2.5 on at least 9 degree credits taken at Shepherd College;
  - F. Document computer competency;
  - G. Document satisfactory progress in portfolio development;
  - H. Have completed ENGL 101, ENGL 102, and COMM 202 with a grade of at least C;
  - I. Have no grade lower than a C in any professional studies or specialty studies courses;
  - J. Submit a statement he/she has signed attesting that he/she has not been convicted of any felony as established by West Virginia Code; and
  - K. Have met specific requirements in the specialization handbook for the area into which he/she wishes to be admitted.

#### Admission to Student Teaching (Juncture 2 Review)

To be eligible for student teaching review the student must:

1. Have passed Juncture I Review;
2. Have full status in the teacher education program;
3. Have required GPA (2.5 minimum in both education studies and overall);
4. Have no grade lower than C in education studies;
5. Document satisfactory progress in portfolio development;
6. Have met all requirements as specified by the specialization in the *Catalog* or the specialization handbook; and
7. Continue to be free of conviction for felony.

#### Certification (Juncture 3 Review)

To be eligible for certification review, the student must:

1. Have full status in the teacher education program;
2. Have completed all course work applied toward the degree including a minimum of 45 upper division hours;
3. Have required GPA of 2.5 in each education studies and overall (unless specified higher by the specialization);
4. Have no grade lower than a C in all education specialty studies;
5. Have met any additional specialization requirements;
6. Pass state mandated tests for West Virginia certification; and
7. Have submitted required forms and fees for certification.

All teacher education students should be mindful that, in order to be recommended for certification, the West Virginia Board of Education requires that the appropriate College official attest to the following statement: To the best of my knowledge, the applicant is of good moral character and physically, mentally, and emotionally qualified to perform the duties of an educator and is not the subject of any criminal conviction or currently pending charges (felonies or misdemeanors) which would show a lack of good moral character.

#### Curricular Policies for Teacher Education

The following curricular policies are common to all teaching specializations. Please refer to the specialization area handbook for specific policies for your area of interest.

1. No more than seven years must have elapsed between completing any course in specialty and professional studies areas and the completion of the teacher education program. In order to complete a teacher education program:
  - A. Students must complete within seven years the graduation requirements of the *Catalog* which they have chosen. They may choose a *Catalog* in effect at their initial admission to the College or a subsequent *Catalog*. If no *Catalog* choice is explicitly made, the student is assigned one. Students may not split *Catalog* requirements.
  - B. State-mandated changes, if they occur, override requirements in the *Catalog* on an implementation schedule determined by the state. Otherwise, the College *Catalog* is the binding document for all audits of graduation requirements.
  - C. Rules affecting the internal progress of students within the education programs are provided in the Specialization Handbooks, and exceptions to these rules must be approved by the Professional Education Unit Council.
2. Once a student has been admitted to Shepherd College, transfer course work to be applied to meeting specialty studies and professional studies requirements must be approved. In the case of specialty courses, the approval must come from the specialization coordinator or his/her designee. In the case of professional studies, the approval must come from the chair of the Department of Education or his/her designee. It is the student's responsibility to provide sufficient information regarding the courses under consideration to permit an informed judgment based on the content and thematic requirements of the teacher education program.
3. All students seeking elementary or secondary education degrees must satisfy the requirements for graduation that apply to all Shepherd College graduates and, in addition, maintain at least a GPA of 2.5 in education (consists of Professional and Specialty Studies Curriculum) and an overall GPA of at least 2.5.
4. Each specialization area determines the courses which must be satisfactorily completed prior to student teaching.
5. All required professional education courses except the student teaching seminar and capstone seminar must be completed prior to student teaching.
6. Specialization areas may identify critical courses and experiences which require more rigorous levels of performance than the minimums established by the professional education unit.

## Elementary Education

The purposes of elementary education multi-subjects specialization are:

1. To promote teachers who are reflective problem solvers in the daily workplace of elementary schools;
2. To promote teachers who plan and implement a learning environment responsive to the social and psychological conditions which characterize their school;
3. To promote a strong background in child development and related pedagogical practices;
4. To provide teachers with a wide range of teaching methodologies and strategies across many content areas;
5. To promote a broadly based understanding of elementary school and its place and function in society; and
6. To promote a desire for continued investigation of the teaching/learning dialectic beyond the undergraduate preparation.

### Specific general studies requirements

GSCI 103, 104	General Physical Science I and II .....	8
MATH 101	Introduction to Mathematics .....	3

## Professional Studies Core for Elementary Education

Hours required .....		42
EDUC 150	Seminar in Education .....	1
EDUC 200	Foundations of Education .....	3

EDUC 320	Social and Psychological Conditions of Learning .....	5
EDUC 351	Integrated Pedagogy I .....	9
EDUC 352	Integrated Pedagogy II .....	9
EDUC 400	Student Teaching Seminar .....	3
EDUC 450	Student Teaching K-6 .....	9
EDUC 460	Senior Capstone Seminar .....	3

## Specialty Studies for Elementary Education Multi-Subjects K-6

Hours required .....		37
MUSC 102	Music as an Art and Science .....	2
MUSC 226	Music Materials and Procedures .....	3
ARED 325	Aesthetic Inquiry .....	3
HLTH 301	Health and Safety in the Elementary School .....	3
PHED 110	Elementary School PE Activities .....	3
HIST 201	History of the United States to 1865 .....	3
HIST 202	History of the United States, 1865 to Present .....	3
HIST 309	West Virginia and the Appalachian Region .....	3
GEOG 101	Principles of World Geography .....	3
BIOL 100	Life Science for Elementary Teachers .....	4
CHEM 100	Chemical Science .....	3
CHEM 100L	Chemical Science Laboratory .....	1
MATH 300	Mathematics for Elementary Teachers .....	3

**Electives:** Students are encouraged to pursue a concentration in a content area through the use of their elective hours. Students are encouraged to select upper division courses for these electives. The variety of options for such concentrations and courses can be discussed with an advisor.

**Other Requirements:** The Department of Education has the responsibility for both the professional studies and specialty studies components of the elementary education specialization, so the student's advisor will be from this department. Students should consult the elementary education specialization handbook for the most up-to-date policies, procedures, and requirements for this specialization.

**Contact Person:** Dr. Doug Cooper, Knutti Hall 106, 304/876-5292, or Department of Education, Knutti Hall 108, 304/876-5305.

## Specialty Studies for Early Education PreK

Students who are especially interested in education in nursery schools, day care centers, or at the kindergarten level may wish to pursue this specialization.

Hours required .....		49
MUSC 102	Music as an Art and Science .....	2
MUSC 226	Music Materials and Procedures .....	3
ARED 325	Aesthetic Inquiry .....	3
HLTH 301	Health and Safety in the Elementary School .....	3
PHED 110	Elementary School PE Activities .....	3
HIST 201	History of the United States to 1865 .....	3
HIST 202	History of the United States, 1865 to Present .....	3
HIST 309	West Virginia and the Appalachian Region .....	3
GEOG 101	Principles of World Geography .....	3
BIOL 100	Life Science for Elementary Teachers .....	4
CHEM 100, 100L	Chemical Science and Lab .....	4
MATH 300	Mathematics for Elementary Teachers 3	
EDUC 314	Foundations of Early Education .....	3
EDUC 334	Instructional Strategies in Early Education .....	3
EDUC 336	Clinical Experiences in Early Education .....	3
FACS 304	Child Development .....	3

EDUC 314, 334, and 336 are offered every third semester in the above sequence. The sequence begins with EDUC 314 in fall 2001 and again in spring 2003. Students should plan accordingly in order to follow this sequence.

In addition to these courses, two additional courses are required: GSCI 103 and GSCI 104. The last two courses fulfill general studies requirements in science. MATH 101 is a prerequisite for MATH 300.

**Electives:** Students are encouraged to pursue a concentration in a content area through the use of their elective hours. Students are encouraged to select upper division courses for these electives. The variety of options for such concentrations and courses can be discussed with an advisor

**Other Requirements:** The Department of Education has the responsibility for both the professional studies and specialty studies components of the elementary education specialization, so the student's advisor will be from this department. Students should consult the elementary education specialization handbook for the most up-to-date policies, procedures, and requirements for this specialization.

**Contact Person:** Judy Kepple, Stutzman-Slonaker Hall 205, 304/876-5256, or Department of Education, Knutti Hall 108, 304/876-5305.

### Middle School Education

The middle school certification includes 5-9 grade ranges. The required courses in professional studies are listed below. See individual specialization areas for specialty curriculum. Students who want middle school certification must complete two middle school specializations or one middle school specialization AND either the elementary education multi-subjects K-6 specialization or one secondary education specialization.

#### Professional Studies Core for Middle School Education

Hours required .....	29
EDUC 150	Seminar in Education ..... 1
EDUC 200	Foundations of Education ..... 3
EDUC 319	Middle School Curriculum ..... 3
EDUC 320	Social and Psychological Conditions of Learning ..... 5
EDUC 4XX	Special Methods ..... 3
EDUC 435	Special Methods Practicum ..... 2
EDUC 400	Student Teaching Seminar ..... 3
EDUC 453	Student Teaching, Grades 5-9 ..... 9

**Contact Person:** Dr. Doug Cooper, Knutti Hall 106, 304/876-5292 or Department of Education, Knutti Hall 108, 304/876-5305.

### Secondary Education

The secondary certification includes K-12, 5-9, 5-12, or 9-12 grade ranges. The required courses in professional studies are listed below. See individual specialization areas for specialty curriculum.

#### Professional Studies Core for Secondary Education

Hours required .....	30-33
EDUC 150	Seminar in Education ..... 1
EDUC 200	Foundations of Education ..... 3
EDUC 320	Social and Psychological Conditions of Learning ..... 5
EDUC 370	Creating Learning Environments ..... 4
EDUC 4XX	Special Methods ..... 3-6*
EDUC 400	Student Teaching Seminar ..... 3
EDUC 435	Special Methods Practicum ..... 2
EDUC 45X	Student Teaching ..... 9

\* Family and consumer sciences education requires 6 hours.  
See each specialization for specific course numbers and titles.

### Education Minor

The education minor is offered to students who may have some interest in teaching or who wish to develop a more critical understanding of the role of schooling in society. It combines a core set of classes and selections made from three areas emphasizing the foundations, the sociological, and the psychological. THE EDUCATION MINOR DOES NOT LEAD TO A RECOMMENDATION FOR TEACHER CERTIFICATION.

## Curriculum for a Minor in Education

Total hours required .....	22-23
Required core .....	10-11
EDUC 200	Foundations of Education ..... 3
EDUC 320	The Social and Psychological Conditions of Learning ..... 5
EDUC 392	Cooperative Education in Education OR ..... 3
EDUC 429	Adult Education Models and Practices OR ..... 2
EDUC 336	Clinical Experiences in Early Education OR ..... 3
EDUC 390	Experiential Learning ..... 3

Electives ..... 12

Choose one course from each of the three groups below and an additional course which may be selected from any of the three groups.

### Foundations

ENGL 203	Teaching Reading and Adolescent Literature ..... 3
EDUC 314	Foundations of Early Education ..... 3
EDUC 360	Survey of Exceptional Children ..... 3
PHIL 315	Ethics ..... 3
PSCI 412	Metropolitan Politics ..... 3

### Sociological

ENGL 360	Literature and the Sexes ..... 3
WMST 201	Introduction to Women's Studies ..... 3
EDUC 310	Educational Sociology ..... 3
SOWK 305	Human Behavior in the Social Environment ..... 3
SOWK 417	Sex and Gender in Contemporary Society ..... 3
SOCI 205	Social Problems ..... 3
SOCI 303	The Family ..... 3
SOCI 403	Ethnic Relations ..... 3
SOCI 411	Social Stratification ..... 3

### Psychological

EDUC 334	Instructional Strategies in Early Education ..... 3
PSYC 301	Adolescent Development ..... 3
FACS 304	Child Development ..... 3
PSYC 305	Social Psychology ..... 3
PSYC 430	Humanistic Psychology ..... 3

## EMERGENCY MEDICAL SERVICES

### Curriculum for a Minor in Emergency Medical Services

Students with this minor still need to meet the 45-hour upper division requirements.

Total hours required .....	41
EMSP 101	Introduction to EMS ..... 2
EMSP 102	EMT-Basic ..... 5
EMSP 103	EMS Operations ..... 2
EMSP 104	EMS Practicum I ..... 1
EMSP 201	Airway Management/Patient Assessment ..... 2
EMSP 202	Pathophysiology/Shock, Trauma ..... 2
EMSP 203	Pre-hospital Pharmacology ..... 2
EMSP 204	EMS Practicum II ..... 2
EMSP 205	Medical Emergencies I ..... 4
EMSP 206	EMS Practicum III ..... 2
EMSP 207	Medical Emergencies II ..... 4
EMSP 208	Special Patients & Situations ..... 2
EMSP 209	EMS Practicum IV ..... 2
EMSP 210	Assessment Based Management ..... 1
BIOL 225	Human Anatomy & Physiology ..... 3
BIOL 227	Human Anatomy & Physiology Lab ..... 1

BIOL 226	Human Anatomy & Physiology .....	3
BIOL 228	Human Anatomy & Physiology Lab .....	1

## ENGINEERING

In addition to the Associate of Science degree in engineering, described in the Community and Technical College section of this *Catalog*, a minor in engineering is offered.

### Curriculum for a Minor in Engineering

Total hours required .....	27
ENGR 101	Engineering I ..... 3
ENGR 102	Engineering II ..... 3
ENGR 221	Introduction to Electrical Engineering ..... 3
ENGR 241	Engineering Statics ..... 3
ENGR 242	Engineering Dynamics ..... 3
PHYS 221, 221L	General Physics I and Laboratory ..... 4
MATH 207	Calculus I ..... 4
MATH 208	Calculus II ..... 4

## ENGLISH

The Department of English seeks to help prepare students to live in a complex, technological, and diverse world by introducing them to varying perspectives offered by a thorough study of literature and language. Through these perspectives, sociological and personal barriers may be broken down, and the possibilities as well as the paradoxes of human existence may be better understood.

The primary objectives of the English curriculum include the following:

1. To encourage students to think critically and to communicate their thoughts effectively by helping them develop the skills necessary to understand and utilize the English language;
2. To contribute to the liberal arts education of all students by exposing them to the diversity and richness of the world's best literature;
3. To prepare English education majors to become reflective problem solvers, capable of teaching English on the middle or secondary levels, in a country as ethnically diverse as ours;
4. To provide students, particularly English majors, with a broad background in languages and literature which will enable them to pursue graduate study;
5. To give English and English education majors a knowledge of the basic tools of effective written communication, technology, and an understanding of literature that will enable them to pursue any vocation and function in a diverse and global work world.

### Curriculum for a Major in English

Specific general studies requirement

ENGL 208	Survey of World Literature I .....	3
Total hours required for an English major .....		31*
Required courses .....		16
ENGL 310	Survey of British Literature I .....	3
ENGL 311	Survey of British Literature II .....	3
ENGL 370	Modern Grammar OR	
ENGL 375	History of the English Language .....	3
ENGL 418	Studies in Chaucer and Milton .....	3
ENGL 421	Shakespeare .....	3
ENGL 485	Senior Capstone Practicum .....	1

Electives ..... 15  
 Of the 15 remaining hours (5 elective courses), a minimum of one course MUST come from EACH  
 of the following period groupings:

**Ancient/Medieval/Renaissance:**

ENGL 300	Greek Mythology .....	3
ENGL 302	The Bible as Literature .....	3
ENGL 315	Medieval Literature .....	3
ENGL 316	Medieval Drama .....	3
ENGL 320	Renaissance Prose and Poetry .....	3
ENGL 321	Renaissance Drama .....	3
ENGL 322	Hamlet in Context .....	3

**Restoration/Eighteenth Century:**

ENGL 330	Restoration and Eighteenth-Century Literature .....	3
ENGL 331	Restoration/Eighteenth-Century Drama .....	3
ENGL 332	**British Novel .....	3
ENGL 333	Satire .....	3
ENGL 360	**Literature and the Sexes .....	3

**Nineteenth Century:**

ENGL 332	**British Novel .....	3
ENGL 340	British Romantic Literature .....	3
ENGL 341	Nineteenth-Century British Literature (1837-1900) .....	3
ENGL 346	**American Fiction .....	3
ENGL 347	**American Poetry .....	3
ENGL 360	**Literature and the Sexes .....	3
ENGL 445	Studies in American Literature .....	3

**Modern:**

ENGL 346	**American Fiction .....	3
ENGL 347	**American Poetry .....	3
ENGL 355	American Ethnic Literature .....	3
ENGL 357	Contemporary American Poetry .....	3
ENGL 361	Short Story .....	3
ENGL 362	Modern Novel .....	3
ENGL 363	Modern Dramatic Literature .....	3
ENGL 365	Contemporary Literature .....	3

Seminars: With the consent of the department chair, one of the following Seminar in Literature courses or an approved special topics course may be substituted for a course in any appropriate period grouping listed above:

ENGL 405	Seminar in Literature .....	3
ENGL 406	Seminar in Literature .....	3
ENGL 407	Seminar in Literature .....	3

\*\*Courses designated with a double asterisk (\*\*) cover more than one period but may be taken to satisfy only ONE period requirement.

**Curriculum for a Minor in English**

Specific general studies requirement

ENGL 208	Survey of World Literature I .....	3
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Total hours required for an English minor ..... 18

Required courses ..... 12

ENGL 310	Survey of British Literature I .....	3
ENGL 311	Survey of British Literature II .....	3
ENGL 372	Advanced Composition .....	3
ENGL 421	Shakespeare .....	3

Electives ..... 6

Two literature courses, numbered 300 or above, must be selected from TWO DIFFERENT period groupings listed above.

## Curriculum for a Teaching Field in English Education 5-12

In addition to the course work required for the specialization, all prospective student teachers must make a satisfactory grade on the English Competency Exam and participate in at least TWO "laboratory" activities in language arts—writing for a college publication (newspaper, literary magazine), taking part in forensic activities, taking part in theatrical activities, working for the College radio station, being an English tutor, working in the College Writing Center, taking an English practicum course, or participating in some other activity approved in advance by the specialization coordinator. One of these activities must be tutoring in the College Writing Center.

Specific general studies requirement

ENGL 208 Survey of World Literature I ..... 3

Total hours required for a teaching field ..... 42\*

See course listings under Education for professional courses.

Required courses ..... 30

ENGL 203 Teaching Reading and Adolescent Literature ..... 3

ENGL 300 Greek Mythology ..... 3

ENGL 310 Survey of British Literature I ..... 3

ENGL 311 Survey of British Literature II ..... 3

ENGL 355 American Ethnic Literature ..... 3

ENGL 360 Literature and the Sexes ..... 3

ENGL 370 Modern Grammar ..... 3

ENGL 375 History of the English Language ..... 3

ENGL 377 Peer Tutoring and Composition Theory ..... 3

ENGL 421 Shakespeare ..... 3

Electives ..... 12

Of the 12 remaining hours (four elective courses) a minimum of three hours (one course) MUST come from EACH period grouping listed below:

**Ancient/Medieval/Renaissance:**

ENGL 302 Bible as Literature ..... 3

ENGL 315 Medieval Literature ..... 3

ENGL 316 Medieval Drama ..... 3

ENGL 320 Renaissance Prose and Poetry ..... 3

ENGL 321 Renaissance Drama ..... 3

ENGL 322 Hamlet in Context ..... 3

ENGL 418 Studies in Chaucer and Milton ..... 3

**Restoration/Eighteenth Century:**

ENGL 330 Restoration and Eighteenth-Century Literature ..... 3

ENGL 331 Restoration/Eighteenth-Century Drama ..... 3

ENGL 332 \*\*British Novel ..... 3

ENGL 333 Satire ..... 3

ENGL 360 Literature and the Sexes ..... 3

**Nineteenth Century:**

ENGL 332 \*\*British Novel ..... 3

ENGL 340 British Romantic Literature ..... 3

ENGL 341 Nineteenth-Century British Literature (1837-1900) ..... 3

ENGL 346 \*\*American Fiction ..... 3

ENGL 347 \*\*American Poetry ..... 3

ENGL 445 Studies in American Literature ..... 3

ENGL 360 \*\*Literature and the Sexes ..... 3

Modern:

ENGL 346	** American Fiction .....	3
ENGL 347	** American Poetry .....	3
ENGL 357	Contemporary American Poetry .....	3
ENGL 361	Short Story .....	3
ENGL 362	Modern Novel .....	3
ENGL 363	Modern Dramatic Literature .....	3
ENGL 365	Contemporary Literature .....	3

\*This total of 42 hours is in addition to the 12 hours of general studies requirements in English.  
\*\*Courses designated with a double asterisk (\*\*) cover more than one period but may be taken to satisfy only ONE period requirement.

See professional education course listings under Education: Professional Studies Course for Secondary Education (30 hours required). Special Methods of Teaching English is EDUC 421.

Contact Person: Dr. Sylvia Shurbutt, Knutti Hall 223, 304/876-5207, <sshurbut@shepherd.edu>.

Curriculum for a Teaching Field in English Education 5-9

The 5-9 English education program is intended primarily for students preparing to teach in middle schools.

Total hours required ..... 24

ENGL 203	Teaching Reading and Adolescent Literature .....	3
ENGL 300	Greek Mythology .....	3
ENGL 310	Survey of British Literature I .....	3
ENGL 311	Survey of British Literature II .....	3
ENGL 355	American Ethnic Literature .....	3
ENGL 360	Literature and the Sexes .....	3
ENGL 370	Modern Grammar OR	
ENGL 377	Peer Tutoring and Composition Theory .....	3
ENGL 421	Shakespeare .....	3

In addition to the course work required for the 5-9 specialization, all prospective student teachers must make a satisfactory grade on the English competency exam and participate in at least TWO laboratory activities in language arts—writing for a College publication (newspaper, literary magazine), taking part in forensic activities, taking part in theatrical activities, working in the College Writing Center, taking Practicum in English, or participating in some other activity approve in advance by the advisor and the department chair. See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required).

Contact Person: Dr. Sylvia Shurbutt, Knutti Hall 223, 304/876-5207, <sshurbut@shepherd.edu>.

ENVIRONMENTAL STUDIES

The environmental studies degree consists of a curriculum core which provides the student with a general background in major components of the environmental area. Upon completion of this core, students will follow one of five possible concentrations: environmental science; resource management; aquatic science; historic preservation; or environmental engineering.

Curriculum for a Comprehensive Major in Environmental Studies

Total hours required (including free electives) ..... 128-131

General studies requirements (not required by concentrations) ..... 47

Required core courses ..... 28

ENVS 201	Dimensions of Environmental Science I.....	3
ENVS 202	Dimensions of Environmental Science II .....	3
ENVS 306	Environmental Policy .....	4
ENVS 401	Conservation Ecology .....	4
ENVS 451	Senior Research Seminar .....	3
ENVS 490	Applied Remote Sensing .....	4
ECON 206	Principles of Microeconomics .....	3
GSCI 301	Physical Geology .....	4

**Environmental Science Concentration**

The environmental science concentration is designed to prepare the student for a future in scientific study of the environment, with the broad range of topics covered providing the student with perspective on the numerous parameters environmental scientists must consider in their work. Instructional emphasis also provides the student with the background necessary for graduate study.

**Specific general studies requirements**

BIOL 208, 209	Plants as Organisms and Animals as Organisms .....	8
MATH 205	Calculus with Applications OR	
MATH 314	Statistics .....	3-4
ECON 205	Principles of Macroeconomics .....	3
Concentration requirements .....		47

**Required courses .....** 15

CHEM 325	Computers in Science .....	3
ENVS 307	Introduction to Historic Preservation .....	3
ENVS 308	Physical Resource Management .....	3
ENVS 450	Environmental Internship .....	6
Environmental science and biological resources .....		8
ENVS 340	Sustainable Agriculture .....	4
ENVS 422	Stream Ecology .....	4
BIOL 302	Microbiology .....	4
BIOL 305	Cell Biology .....	4
BIOL 310	Plant Pathology .....	3
BIOL 313	Invertebrate Natural History .....	4
BIOL 324	Plant Taxonomy I .....	2
BIOL 325	Plant Taxonomy II .....	1
BIOL 410	Plant Physiology .....	3
BIOL 412	Animal Physiology .....	3
BIOL 344*	Genetics .....	4
BIOL 416**	Molecular Biology .....	4
GSCI 306, 307	Introduction to Oceanography and Lab .....	4

\*Cell Biology (BIOL 305) is required for enrollment in Genetics (BIOL 344).

\*\*Cell Biology (BIOL 305) or Genetics (BIOL 344) is required for Molecular Biology (BIOL 416).

**Chemical sciences .....** 8

CHEM 315, 315L	Organic Chemistry I and Lab .....	4
CHEM 316, 316L	Organic Chemistry II and Lab .....	4
CHEM 321, 321L	Analytic Chemistry and Lab .....	4
CHEM 322, 322L	Instrumental Analysis and Lab .....	4
CHEM 327, 327L	Solution Chemistry and Lab .....	4
CHEM 329, 329L	Biochemistry I and Lab .....	4
CHEM 330, 330L	Biochemistry II and Lab .....	4
CHEM 333, 333L	Environmental Chemistry and Lab .....	4

**Earth sciences .....** 8

ENVS 360	Sedimentology and Stratigraphy .....	4
ENVS 362	Soil Science .....	4
ENVS 440	Solid Waste/Air Quality Management .....	4
ENVS 441	Hydrology and Lab .....	4
GSCI 303	Meteorology .....	4
GSCI 312	Historical Geology .....	4

**Physics .....** 8

PHYS 201, 201L	College Physics I and Lab AND	
PHYS 202, 202L	College Physics II and Lab OR	
PHYS 221, 221L	General Physics I and Lab AND	
PHYS 222, 222L	General Physics II and Lab .....	8

# Resource Management Concentration

The resource management concentration provides the student with a strong, interdisciplinary background in the environmental arena. Upon completion of this option, students will be able to investigate and implement policies relating to the environment, be prepared for employment in state and national parks, undertake environmental advocacy, develop programs for cultural and physical resource management and education, and continue study in these areas at the graduate level.

Specific general studies requirements

BIOL 101, 102	General Biological Science OR	
BIOL 208, 209	Plants as Organisms and Animals as Organisms .....	8
MATH 205	Calculus with Applications OR	
MATH 314	Statistics .....	3-4
ECON 205	Principles of Macroeconomics .....	3
Concentration requirements .....		45-49

Required courses .....

CHEM 325	Computers in Science .....	3
ENVS 307	Introduction to Historic Preservation .....	3
ENVS 308	Physical Resource Management .....	3
ENVS 450	Environmental Internship .....	6
Environmental science and biological resources .....		7-8
BIOL 310*	Plant Pathology .....	3
BIOL 313*	Invertebrate Natural History .....	4
BIOL 324/325*	Plant Taxonomy I and II .....	3
BIOL 410*	Plant Physiology .....	3
ENVS 422	Stream Ecology .....	4
GSCI 306/307	Introduction to Oceanography and Lab .....	4
ENVS 362	Soil Science .....	4

\*For students taking these courses, Plants and Animals as Organisms (BIOL 208, 209) is preferred

Environmental science and physical resources .....

GSCI 302	General Astronomy .....	4
GSCI 303	Meteorology .....	4
GSCI 312	Historical Geology .....	4
ENVS 360	Sedimentology .....	4
ENVS 440	Solid Waste/Air Quality Management .....	4
ENVS 441	Hydrology and Lab .....	4

Management of our resources .....

ENVS 210	Introduction to Park Administration .....	3
ENVS 301	Wildlife Management .....	3
ENVS 302	Forestry .....	3
ENVS 305	Environmental Law and Regulation .....	4
ENVS 309	Regional Geology and Geomorphology .....	3
ENVS 310	Park Management .....	3
ENVS 311	Resource Management .....	3
ENVS 319	Land Use Planning .....	3
ENVS 340	Sustainable Agriculture .....	4
ENVS 341	Sustainable Energy and Development .....	4
ENVS 368	Geology of National Parks .....	3

Human and economic resources .....

ANTH 225	Introduction to Museum Studies .....	3
ANTH 300	Introduction to Archaeology .....	3
ANTH 315	Cultural Anthropology .....	3
ANTH 345	Archaeological Field Methods and Lab .....	4
ANTH 370	American Architecture Heritage .....	3
ANTH 380	Historical Archaeology and Lab .....	3
ENVS 320	Communication Strategies for Environmental Studies ...	3
ENVS 322	Environmental History .....	3
ENGL 220	Appalachian Culture .....	3

HIST 309	West Virginia and the Appalachian Region .....	3
GEOG 301	World Economic Geography .....	3
GEOG 400	Latin America Geography .....	3

### Aquatic Science Concentration

The aquatic science concentration provides training in the practical skills required to directly enter employment in industry, consulting firms, or government, in positions where they monitor or ameliorate aquatic habitats. In addition, the aquatic science concentration would prepare students who plan to pursue graduate studies in a diverse range of disciplines such as aquaculture, fisheries management, ecology, and environmental studies.

#### Specific general studies requirements

BIOL 208, 209	Plants as Organisms and Animals as Organisms ....	8
MATH 205	Calculus with Applications OR	
MATH 314	Statistics .....	3-4
ECON 123	Contemporary Economics OR	
ECON 205	Principles of Macroeconomics .....	3
Concentration requirements .....		45

#### Required courses .....

CHEM 325	Computers in Science .....	3
ENVS 307	Introduction to Historic Preservation .....	3
ENVS 308	Physical Resource Management .....	3
ENVS 342	Limnology .....	4
ENVS 343	Aquatic Entomology OR	
ENVS 344	Ichthyology .....	4
ENVS 422	Stream Ecology .....	4
ENVS 441	Hydrology and Lab .....	4
ENVS 450	Environmental Internship .....	6
PHYS 201, 201L	College Physics I and Lab AND	
PHYS 202, 202L	College Physics II and Lab OR	
PHYS 221, 221L	General Physics I and Lab AND	
PHYS 222, 222L	General Physics II and Lab .....	8
Biological and earth sciences .....		4
BIOL 302	Microbiology .....	4
BIOL 305	Cell Biology .....	4
BIOL 310	Plant Pathology .....	3
BIOL 313	Invertebrate Natural History .....	4
BIOL 324	Plant Taxonomy I .....	2
BIOL 325	Plant Taxonomy II .....	1
BIOL 344*	Genetics .....	4
BIOL 410	Plant Physiology .....	3
BIOL 412	Animal Physiology .....	3
BIOL 416**	Molecular Biology .....	4

\*Cell Biology (BIOL 305) is required for enrollment in Genetics (BIOL 344).

\*\*Cell Biology (BIOL 305) or Genetics (BIOL 344) is required for Molecular Biology (BIOL 416).

#### Chemical sciences .....

CHEM 207, 207L	General Chemistry I and Lab AND	
CHEM 209, 209L	General Chemistry I and Lab .....	8
CHEM 315, 315L	Organic Chemistry I and Lab OR	
CHEM 321, 321L	Analytic Chemistry and Lab OR	
CHEM 333, 333L	Environmental Chemistry and Lab .....	4

### Historic Preservation Concentration

The Historic Preservation Act of 1966 established requirements for federal level protection of cultural resources, with programs typically carried out by the state or contracted to private consultants. Students with background in the theory and practical application of historic

preservation and cultural resource management have numerous employment opportunities with federal or state agencies or working with consultants in the protection of our irreplaceable cultural resources. With urban sprawl and population increase in the Washington-Baltimore metropolx, the demand for individuals trained in this exciting and challenging area is experiencing phenomenal growth. The historic preservation concentration at Shepherd College is designed to prepare the student for employment in this challenging field and provide academic background necessary for success in graduate school.

Specific general studies requirements

BIOL 101, 102	General Biological Science OR	
BIOL 208, 209	Plants as Organisms and Animals as Organisms OR	
CHEM 101, 101L	Chemistry and Society I and Lab AND	
CHEM 102, 102L	Chemistry and Society II and Lab OR	
CHEM 207, 207L	General Chemistry I and Lab AND	
CHEM 209, 209L	General Chemistry II and Lab	8
MATH 314	Statistics	3
ECON 205	Principles of Macroeconomics	3
Concentration requirements		54-57
Required courses		36

ANTH 225	Introduction to Museum Studies	3
ANTH 300	Introduction to Archaeology	3
ANTH 370	American Architectural Heritage	3
CHEM 325	Computers in Science	3
ENVS 307	Introduction to Historic Preservation	3
ENVS 308	Physical Resource Management	3
ENVS 371	Documentation of Historic Properties	3
ENVS 372	Preservation Technology	3
ENVS 450	Environmental Internship	6
HIST 201	History of the United States to 1865	3
HIST 202	History of the United States, 1865 to Present	3
Management of our resources (select two courses)		6-7
ENVS 210	Introduction to Park Administration	3
ENVS 305	Environmental Law and Regulation	4
ENVS 309	Regional Geology and Geomorphology	3
ENVS 310	Park Management	3
ENVS 319	Land Use Planning	3
ENVS 368	Geology of National Parks	3
Historical perspective (select two courses)		6
ENVS 320	Communication Strategies for Environmental Studies	3
ENVS 321	American Decorative Arts	3
ENVS 325	Oral History	3
HIST 302	Am. Colonial History and Revolutionary Experience	3
HIST 303	The Early Republic	3
HIST 304	The American Civil War and Reconstruction	3
HIST 305	History of the Lower Shenandoah Valley	3
HIST 309	West Virginia and the Appalachian Region	3
HPRE 113	Battlefield Preservation	3
Archaeology and anthropology (select two courses)		6-8
ANTH 315	Cultural Anthropology	3
ANTH 345	Archaeological Field Methods and Lab	4
ANTH 380	Historical Archaeology and Lab	4
ANTH 390	Native American Ethnography	3

Environmental Engineering Concentration

The environmental engineering concentration is designed to prepare the student for a future in application of engineering technology to environmental issues and problems. The need for trained

environmental engineers is illustrated through the numerous employment opportunities available for individuals trained in this field in industry, at state and federal agencies, and with environmental consulting firms. The program structure provides the student with the skills to achieve success in this challenging field, and further required field experience through a required internship. Instructional emphasis also prepares the student with the academic skills necessary for graduate study in environmental engineering.

#### Specific general studies requirements

CHEM 207, 207L	General Chemistry I and Lab AND	
CHEM 209, 209L	General Chemistry I and Lab .....	8
MATH 207	Calculus I .....	4
ECON 205	Principles of Macroeconomics .....	3
Concentration requirements .....		52-53
Required courses .....		41
ENGR 101	Engineering I .....	3
ENGR 102	Engineering II .....	3
ENGR 221, 222	Introduction to Electrical Engineering and Lab .....	4
ENGR 241	Engineering Statics .....	3
ENGR 242	Engineering Dynamics .....	3
ENGR 243	Engineering Mechanics of Materials .....	3
ENGR 301	Engineering Thermodynamics OR	
ENGR 351	Introduction to Fluid Mechanics .....	3
ENVS 450	Environmental Internship .....	3
MATH 208	Calculus II .....	4
MATH 310	Differential Equations .....	4
PHYS 221, 221L	General Physics I and Lab AND	
PHYS 222, 222L	General Physics II and Lab .....	8
Environmental science (select three courses) .....		11-12
GSCI 341	Sustainable Energy and Development .....	4
GSCI 362	Soil Science .....	4
ENVS 422	Stream Ecology .....	4
ENVS 440	Solid Waste/Air Quality Management .....	4
ENVS 441	Hydrology and Lab .....	4
MATH 329	Mathematical Modeling .....	3

## Curriculum for a Minor in Environmental Studies

#### Specific general studies requirements

CHEM 101, 101L	Chemistry in Society I and Lab AND	
CHEM 102, 102L	Chemistry in Society II and Lab OR	
CHEM 207, 207L	General Chemistry I and Lab AND	
CHEM 209, 209L	General Chemistry II and Lab .....	8
Total hours required .....		28
ENVS 201	Dimensions of Environmental Science I .....	3
ENVS 202	Dimensions of Environmental Science II .....	3
ENVS 306	Environmental Policy .....	4
ENVS 307	Introduction to Historical Preservation .....	3
ENVS 308	Physical Resource Management .....	3
ENVS 401	Conservation Ecology .....	4
GSCI 301	Physical Geology .....	4
Select one of the following .....		4
CHEM 333, 333L	Environmental Chemistry and Lab .....	4
GSCI 303	Meteorology .....	4
GSCI 306, 307	Introduction to Oceanography and Lab .....	4
GSCI 312	Historical Geology .....	4
ENVS 340	Sustainable Agriculture .....	4
ENVS 360	Sedimentology .....	4
ENVS 362	Soil Science .....	4

ENVS 440	Solid Waste/Air Quality Management .....	4
ENVS 441	Hydrology and Lab .....	4
ENVS 422	Stream Ecology .....	4

# FAMILY AND CONSUMER SCIENCES

A career in family and consumer sciences, a helping profession, is one that includes many specialties. The men and women who are family and consumer scientists deliver services to benefit people in their daily lives. The services focus primarily on prevention and intervention. Family and consumer scientists are employed by human service organizations, manufacturers, businesses, government, the cooperative extension service, and public agencies. The family and consumer sciences curriculum is a general one which provides courses in each of the five distinct areas. A student chooses a minor to complement this major and his or her personal interests, skills, and talents. Upon satisfactory completion of the family and consumer sciences curriculum, a student is awarded a bachelor of science degree.

## Curriculum for a Major in Family and Consumer Sciences

Total hours required .....	40*
Required courses .....	32
FACS 101                Textiles .....	3
FACS 102                Clothing .....	4
FACS 202                Food and Meal Management .....	4
FACS 300                Marriage Relations .....	3
FACS 304                Child Development .....	3
FACS 306                Interior Design .....	3
FACS 307                Family and Consumer Science Management .....	3
FACS 308                Housing .....	3
FACS 318                Nutrition .....	3
FACS 403                Consumer Economics .....	3
Electives .....	8
FACS 215                Fashion Analysis .....	3
FACS 310                Parents and Children through the Lifespan .....	3
FACS 315                Cultural Influences on Clothing .....	3
FACS 392                Co-op in Family and Consumer Sciences .....	3
FACS 410                Special Studies .....	1-4
EDUC 429                Adult Education Models and Practices .....	2

\* A student is required to take the courses listed in the *Catalog* under General Studies except that Chemistry in Society CHEM 101, CHEM 101L, CHEM 102, and CHEM 102L or General Biological Science BIOL 101 and BIOL 102 must be selected for the science requirement.

## Family and Consumer Sciences (Minors)

The minors in family and consumer sciences are designed for students in other curricula to enhance their major and broaden their marketable skills.

## Curriculum for a Minor in General Family and Consumer Sciences

Total hours required .....	26
FACS 101	Textiles ..... 3
FACS 102	Clothing ..... 4
FACS 202	Food and Meal Management ..... 4
FACS 300	Marriage Relations ..... 3
FACS 304	Child Development ..... 3
FACS 306	Interior Design OR
FACS 308	Housing ..... 3
FACS 318	Nutrition ..... 3
FACS 403	Consumer Economics ..... 3

## Curriculum for a Minor in Family and Consumer Sciences with a Child Development Emphasis

Students in any curriculum may choose family and consumer sciences as a minor.

Total hours .....	24
EDUC 314*	Foundations in Early Education ..... 3
EDUC 334*	Instructional Strategies in Early Education ..... 3
EDUC 336*	Clinical Experiences in Early Education ..... 3
FACS 304	Child Development ..... 3
FACS 300	Marriage Relations ..... 3
FACS 310	Parents and Children through the Lifespan ..... 3
FACS 318	Nutrition ..... 3
SOCI 303	The Family ..... 3

\*Offered on a rotation plan.

## Curriculum for a Minor in Family and Consumer Sciences with a Fashion Emphasis

Students in any curriculum may choose family and consumer sciences as a minor.

Total hours .....	25
FACS 101	Textiles ..... 3
FACS 102	Clothing ..... 4
FACS 307	Family and Consumer Sciences Management ..... 3
BADM 345	Business Communications ..... 3
FACS 215	Fashion Analysis ..... 3
FACS 306	Interior Design ..... 3
FACS 315	Cultural Influences on Clothing ..... 3
FACS 403	Consumer Economics ..... 3

## Curriculum for a Teaching Field in Family and Consumer Sciences Education Grades 5-12

The family and consumer sciences education student is provided with experiences to increase knowledge and skill in preparation for teaching family and consumer sciences in grades 5-12.

The purposes of the family and consumer sciences program are:

1. To prepare teachers who can work with cultural and ethnic diversity and who are sensitive to gender issues;
2. To provide practice in dealing with the perennial practical problems of families;
3. To make a commitment to enhancing the quality of life for individuals and families as they strive to achieve their selected goals; and
4. To promote knowledge and critical thinking skills.

Upon satisfactory completion of curriculum requirements, the student is awarded a bachelor of arts degree in secondary education and must apply to the State Department of Education for vocational certification.

Total hours required .....	43
FACS 101	Textiles ..... 3
FACS 102	Clothing ..... 4
FACS 202	Food and Meal Management ..... 4
FACS 300	Marriage Relations ..... 3
FACS 304	Child Development ..... 3
FACS 306	Interior Design ..... 3
FACS 307	Family and Consumer Sciences Management ..... 3
FACS 308	Housing ..... 3
FACS 310	Parents and Children through the Lifespan ..... 3
FACS 318	Nutrition ..... 3
FACS 403	Consumer Economics ..... 3
EDUC 429	Adult Education Models and Practices ..... 2
Electives with consent of advisor .....	6

Students are required to take the courses listed in the *Catalog* under General Studies and under

The Professional Studies Core for Secondary Education except that Chemistry in Society I and II CHEM 101, 101L and 102, 102L or General Biological Science BIOL 101 and BIOL 102 must be selected for the science requirement.

See professional education course listings under Education: Professional Studies Core for Secondary Education (33 hours required). Special Methods of Teaching Family and Consumer Sciences in EDUC 428.

Contact Person: Dr. Patricia Stealey, Stutzman-Slonaker Hall 211, 304/876-5318.

FIRE SCIENCE

Curriculum for a Minor in Fire Science

Total hours required .....	33
EMSP 102	EMT-Basic ..... 5
FSCI 102	Introduction to Fire Prevention ..... 3
FSCI 110	Introduction to Fire Service I ..... 2
FSCI 111	Introduction to Fire Service II ..... 4
FSCI 112	Hazardous Materials I and II ..... 3
FSCI 112	Hazardous Materials III ..... 3
FSCI 114	Fire Officer I ..... 3
FSCI 190	Fireground Strategy and Tactics ..... 3
FSCI 230	Fire Investigation ..... 3
FSCI 251	Fire Service Occupational Safety and Health ..... 3
CBUS 289	Career Development and Life Planning ..... 1

GENERAL SCIENCE

For more information about this minor, contact the Institute of Environmental Studies. The Department of Biology and the Department of Physical Sciences jointly offer a comprehensive program of courses in the natural sciences which allows students to obtain the knowledge base and experiences necessary to become certified to teach science in grades 5-12, or for students not majoring in biology or chemistry to minor in general science.

The general science curricula enable students to build knowledge bases about their physical and biochemical universe; foster an attitude of inquiry; and develop a functional understanding of the process of science, the interrelatedness of the various scientific disciplines, and the interactions of science, society, and technology. These curricula also provide opportunities for students to develop a variety of laboratory and technical skills vital to success in the pursuit of knowledge in the natural sciences. In addition to the above goals, the general science 5-12 teaching field complies with and endorses the conceptual framework of the Shepherd College Teacher Education Program and strives to produce teachers who are capable reflective problem solvers.

Curriculum for a Minor in General Science

Total hours required .....	27
Required hours .....	16
Any two of the following three groups:	
Group 1	
BIOL 208	Plants as Organisms ..... 4
BIOL 209	Animals as Organisms ..... 4
Group 2	
CHEM 207, 207L	General Chemistry I and Lab ..... 4
CHEM 209, 209L	General Chemistry II and Lab ..... 4
Group 3	
PHYS 201, 201L	College Physics I and Lab ..... 4
PHYS 202, 202L	College Physics II and Lab OR ..... 4
PHYS 221, 221L	General Physics I and Lab ..... 4
PHYS 222, 222L	General Physics II and Lab ..... 4
Electives .....	11

Any upper division elective courses from areas BIOL, CHEM, PHYS and/or GSCI except GSCI 350 Natural Science Interpretation may not be included.

NOTE: No student with a major in either biology or chemistry shall be permitted to have a minor in general science.

## Curriculum for a Teaching Field in General Science Grades 5-12

Specific general studies requirements

BIOL 208, 209	Plants as Organisms and Animals as Organisms .....	8
MATH 314	Statistics .....	3
See course listings under Education for professional courses		
Required courses .....		47
A. Interdisciplinary core .....		20
CHEM 207, 207L	General Chemistry I and Lab AND	
CHEM 209, 209L	General Chemistry II and Lab .....	8
GSCI 301	Physical Geology .....	4
PHYS 201, 201L	College Physics I and Lab AND	
PHYS 202, 202L	College Physics II and Lab .....	8
B. General science 5-12 specialization .....		27
BIOL 225, 226	Human Anatomy and Physiology .....	6
GSCI 302	General Astronomy .....	4
GSCI 303	Meteorology .....	4
MATH 205	Calculus with Applications .....	4
	Electives in science .....	9

**Notes Concerning Electives in General Science:** Electives must be upper division BIOL, CHEM, and GSCI courses. Electives must be distributed between the aforementioned disciplines. Electives must be approved by the NSTSC. Strongly recommended courses are BIOL 301 Microbiology, BIOL 344 Genetics and Evolution, BIOL 394 Principles of Biological Research, CHEM 315/316 Organic Chemistry, CHEM 315L/316L Organic Chemistry Lab, CHEM 325 Computers in Science, and GSCI 306 Introduction to Oceanography.

**Notes Concerning the Math Requirement:** The prerequisite for MATH 205 and MATH 314 is mathematical competence equivalent to the successful completion of MATH 108 Precalculus or MATH 154 Finite Mathematics.

**Other Requirements:** Although one may declare secondary education with a specializations in general science education 5-12 as a major upon admission to the College, to be officially admitted to the Shepherd College Teacher Education Program and pursue this teaching field the student must meet the following criteria as well as those criteria that apply to all teaching specializations:

- 1) The student must have completed BIOL 208 Plants as Organisms, BIOL 209 Animals as Organisms, CHEM 207 and 209 General Chemistry, CHEM 207L and 209L General Chemistry Lab or their equivalents with a grade of C or better in each course, and
- 2) The student must have completed a minimum of 24 semester house of academic work at Shepherd College with an overall GPA of at least 2.5 and a GPA of at least 2.5 in this specialization.

See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required). Special Methods of Teaching Science is EDUC 423.

Retention in and completion of this program require the student to meet retention, admission to student teaching, and certification standards set by the Professional Education Unit Council. All of the standards for this program can be found in *Information and Planning Handbook for Students Pursuing the Biology 9-12, Chemistry 9-12, and General Science 5-12 Specializations*.

**Contact Person:** Dr. Jason Best, Byrd Science Center 115, 304/876-5331.

# HEALTH EDUCATION

The Department of HPERS, in conjunction with the Department of Education, seeks to prepare health educators who are critical-thinking problem solvers able to encourage others to improve personal fitness and wellness habits, attitudes, and skill, thus promoting a more healthy and meaningful lifestyle.

This certification area may only be taken by students enrolled in and completing the Curriculum for Teaching Field in Physical Education K-12. It may not be taken alone, with any other certification program, or as a minor.

## Curriculum for a Teaching Field in Health Education Grades 5-12

Total hours required for the teaching field ..... 29

Required courses

HLTH 103*	Personal Health .....	3
HLTH 225*	First Aid/CPR .....	3
GSPE 201*	Wellness/Fitness .....	1
PHED 370*	Applied Anatomy and Physiology .....	4
PHED 405*	Applied Kinesiology .....	3
HLTH 300	Substance Use and Abuse .....	3
HLTH 360	School Health Problems .....	3
HLTH 370	Community Health Education .....	3
FACS 300	Marriage Relations .....	3
FACS 318	Nutrition .....	3

\*Indicates courses that are also a part of the Curriculum for Teaching Field in Physical Education K-12.

### Other Requirements for Health Education 5-12:

#### I. Academic Requirements

Students in health education 5-12 student teaching field must meet the following criteria before enrolling in EDUC 455 Student Teaching Grades K-4, 5-8, 9-12:

1. Earn a GPA of 2.5 in all health education and professional education courses combined;
2. Earn an overall GPA of 2.5 in all course work attempted; and
3. Satisfy all requirements in the *Handbook for Teachers of Health Education and Physical Education*;
4. Be interviewed by the HPERS faculty for entrance into the Teacher Education Program \*Juncture 1) and student teaching block (Juncture 2).

#### II. Out-of-Class Requirements for Teaching Health Education (complete four of the following health education growth experiences):

1. Participate in organizing and administering four blood drives;
2. Work as a student assistant in the Wellness Center;
3. Participate in a state, district, or national professional health education conference;
4. Participate in a sanctioned workshop or activity related to health education;
5. Observe in a 15-hour public school health education classroom experience; or
6. Observe at 15 hours in a special (adapted) physical education class in an off-campus setting.

Individual potential as a professional educator will be closely examined as the student progresses through the curriculum. The Pro 05 evaluation form is for this purpose.

See Professional Education course listings under Education: Professional Studies Course for Secondary Education (30 hours required). Special Methods of Teaching Health is EDUC 432.

Contact Person: Dr. J. Michael Jacobs, Butcher Center 204, 304/876-5233.

# HISTORIC PRESERVATION

## Curriculum for a Minor in Historic Preservation

Total hours required ..... 24-26

Required courses ..... 18

ANTH 225	Introduction to Museum Studies .....	3
ANTH 300	Introduction to Archaeology .....	3

ANTH 370	American Architectural Heritage .....	3
ENVS 307	Introduction to Historic Preservation .....	3
ENVS 371	Documentation of Historical Properties .....	3
ENVS 372	Preservation Technology and Historic Materials .....	3
Select two of the following electives .....		6-8
ANTH 315	Cultural Anthropology .....	3
ANTH 345	Archaeological Field Methods and Lab .....	4
ANTH 380	Historical Archaeology and Lab .....	4
ENVS 210	Introduction to Park Administration .....	3
ENVS 319	Land Use Planning .....	3
ENVS 321	American Decorative Arts .....	3
ENVS 325	Oral History .....	3
HPRE 113	Battlefield Preservation .....	3

## HISTORY

History is the exploration of the past as a key to understanding the human condition. Historical study enables students to understand their own and other civilizations and to confront the present and future with intelligence and perspective.

### Curriculum for a Major in History

Specific general studies requirement:

PSCI 101	American Federal Government .....	3
Total hours required for a major .....		30
Required courses .....		15
HIST 201 and 202	History of the United States .....	6
HIST 333	Modern European History .....	3
HIST 314	Recent United States History OR	
HIST 404	World History .....	3
HIST 412	History of Russia Since 1855 OR	
HIST 420	Modern East Asia Since 1800 .....	3
Traditional concentration .....		15
Any 300- or 400-level history courses or PSCI 400 The Supreme Court and Constitutional Law.		

Civil War and Nineteenth-Century America concentration ..... 15

HIST 304	Civil War America, 1850-1865 .....	3
HIST 307	The Reconstruction Era, 1865-1877 .....	3
HIST 430	Civil War Seminar OR	
HIST 435	Practicum in Civil War Studies .....	3
One course from the following .....		3
HIST 303	The Early Republic .....	3
HIST 308	The Old South .....	3
HIST 405	Introduction to African American History .....	3
HIST 438	Soldiers and American Society, 1861-1865 .....	3

Elective course ..... 3

Any 300- or 400-level history course or PSCI 400 The Supreme Court and Constitutional Law.

### Curriculum for a Minor in History

Specific general studies requirement:

PSCI 101	American Federal Government .....	3
Total hours required for a minor .....		24
Required courses .....		15
HIST 201 and 202	History of the United States .....	6
HIST 333	Modern European History .....	3
HIST 314	Recent United States History OR	

HIST 404	World History .....	3
HIST 412	History of Russia OR	
HIST 420	Modern East Asia Since 1800 .....	3
Any 300- or 400-level history course .....		9

# JOURNALISM

For more information about this minor, contact the Department of English. Shepherd College recognizes the interdisciplinary nature of the field of print journalism and has thus constructed a minor that reflects the variety of skills and the knowledge base necessary for the success in this dynamic field. The primary objectives of the print journalism minor include the following:

1. To provide students with the language and communication skills necessary for success in this competitive field;
2. To provide students with the technical skills required for understanding the nature of news writing and news production;
3. To provide students with the practical experience necessary to function in the real world of print journalism; and
4. To help students develop the critical thinking skills and reflective insights needed for analyzing, reporting, and writing print news stories.

## Curriculum for a Minor in Print Journalism

Total hours required .....		21
JOUR 204	Introduction to Print Journalism .....	3
COMM 203	Introduction to Mass Communication .....	3
ENGL 370*	Modern Grammar .....	3
COMM 400	Media Law and Ethics .....	3
JOUR 444**	Practicum in <i>The Picket</i> .....	3
JOUR 451	Internship in Print Journalism .....	3
JOUR 316	Magazine Writing OR	
ENGL 372	Advanced Composition .....	3

All courses with numbers listed below 444 will be cross-referenced with either English or communications courses in the curriculum.

\*Students may take a placement test in order to “test out” of Modern Grammar; thus the total number of hours required for the minor may be only 18.

\*\*Students may receive multiple credit for JOUR 444.

# MASS COMMUNICATION

The Department of Communications recognizes the value of an education that integrates professional knowledge and critical understanding. Mass communication and computer-mediated communication are changing the ways that people generate, disseminate, receive, and use information. The mass communication program accounts for these changes by offering a curriculum that is focused, fundamental, and flexible. The mass communication curriculum is grounded in student participation and empowerment, and provides students with the skills necessary to communicate effectively and appropriately. Students also will critically examine their own experiences, recognize the complexities of living in the global village, and explore the ways that communication technologies infuse and impact their lives. The program also is designed to prepare graduates to be intellectually resilient and prepared for inevitable change. Graduates have gone on to work in television, radio, film, advertising, public relations, news writing, sales, marketing, and other areas including graduate school. Capstone experiences include senior projects, seminars, and/or internships. Students may select the Washington Gateway Program and intern in the Washington, D.C., area—an educational opportunity unique to colleges in the state.

## Curriculum for a Major in Mass Communication

Required courses .....	51
COMM 203	Introduction to Mass Communication ..... 3
COMM 222	Voice and Diction ..... 3
COMM 302	Writing for the Mass Media ..... 3
COMM 320	Presentations for Media ..... 3
COMM 329	Sound Design ..... 3
COMM 339	Public Relations Writing and Design ..... 3
COMM 342	Media Studies ..... 3
COMM 350	Single-Camera Production ..... 3
COMM 352	Computer Mediated Communication ..... 3
COMM 355	Advertising and Imagery ..... 3
COMM 360	Studio Production ..... 3
COMM 400	Media Law and Ethics ..... 3
COMM 405	Advertising, Writing, and Design ..... 3
COMM 392	Cooperative Education in Communication OR
COMM 402	Seminar in Communication OR
COMM 450	Internship in Communication ..... 3
COMM 420	Advanced Production ..... 3
COMM 435	Media Research ..... 3
COMM 461	Senior Project ..... 3

Note: Mass communication majors and minors must earn a C or better in all required 300 and 400 level communications courses. One cannot major in mass communication and minor in mass communication. One may major in mass communication and minor in journalism provided that the student substitutes all repetitive courses with elective courses approved by the journalism coordinator. Please note that COMM 203 is a prerequisite for all courses in the mass communication major, mass communication minor, and journalism minor. COMM 203 is to be the first course taken by mass communication majors and minors.

<sup>1</sup>Note: All students are required to take 45 hours of upper division courses to qualify for graduation.

## Minor in Mass Communication

Required hours for a minor .....	24
COMM 203	Introduction to Mass Communication ..... 3
COMM 302	Writing for the Mass Media ..... 3
COMM 350	Single-Camera Production ..... 3
COMM 326	Radio Practicum ..... 3
COMM 329	Sound Design ..... 3
COMM 352	Computer Mediated Communication ..... 3
COMM 360	Studio Production ..... 3
COMM 420	Advanced Production ..... 3

NOTE: Mass communication minors must earn a C or better in all required 300 and 400 level communications courses.

## MATHEMATICS

The purposes of mathematics are to lead students to a grasp of the beauty and power of mathematical ideas; to prepare the prospective teacher to teach creatively; to furnish mathematical tools necessary for other disciplines; and to help provide vocational direction when needed.

## Curriculum for a Major in Mathematics

Total hours required .....	41
MATH 108	Precalculus (general studies requirement) .....
MATH 207	Calculus I ..... 4
MATH 208	Calculus II ..... 4
MATH 254	Discrete Mathematics ..... 3

MATH 307	Linear Algebra .....	3
MATH 309	Calculus III .....	4
MATH 310	Differential Equations .....	4
MATH 312	Introduction to Abstract Algebra .....	3
MATH 318	Numerical Analysis .....	3
MATH 321	Probability and Statistics .....	3
MATH 329	Mathematical Modeling .....	3
MATH 434	Senior Capstone Practicum .....	1
Two of the following courses .....		6
MATH 404 Number Theory, MATH 405 Topics in Modern Mathematics, MATH 409 Introduction to Complex Variables, MATH 410 Advanced Calculus, MATH 414 History and Development of Mathematics, MATH 415 Introduction to Topology, MATH 424 Foundations of Geometry.		
Special Requirement: In addition to the course work required, prospective major students must demonstrate competency in a computer programming language or receive a minimum grade of C in MATH 317 Computational Mathematics OR ENGR 102 Engineering II OR CIS 211 Computer Language Concepts.		

## Curriculum for a Minor in Mathematics

### Track A, Traditional

Total hours required .....	26
MATH 106      Trigonometry .....	3
MATH 108      Precalculus .....	3
MATH 207      Calculus I .....	4
MATH 208      Calculus II .....	4
MATH 254      Discrete Mathematics .....	3
Approved mathematics courses numbered above MATH 301 .....	9

### Track B, Applied

Total hours required .....	25
MATH 108	Precalculus ..... 3
MATH 205	Calculus with Applications OR
MATH 207	Calculus I ..... 4
MATH 254	Discrete Mathematics ..... 3
MATH 314	Statistics OR
BADM 224	Business Statistics ..... 3
MATH 317	Computational Mathematics ..... 3
Three of the following 4 courses .....	9
MATH 307 Linear Algebra, MATH 318 Numerical Analysis, MATH 321 Probability and Statistics, MATH 413 Quantitative Methods.	

## Curriculum for Mathematics Teaching Field Grades 5-12

Total hours required .....		42
Content skill level:		
ACFN 050*	Consumer Mathematics	
MATH 105*	Algebra	
MATH 106	Trigonometry .....	3
MATH 108	Precalculus ( <i>general studies requirement</i> )	
MATH 200	College Geometry .....	2
Mathematics core:		
MATH 207	Calculus I .....	4
MATH 208	Calculus II .....	4
MATH 254	Discrete Mathematics .....	3
MATH 309	Calculus III .....	4
MATH 329	Mathematical Modeling .....	3
MATH 434	Senior Capstone Practicum .....	1

Advanced mathematics for education:

MATH 307	Linear Algebra .....	3
MATH 312	Introduction to Abstract Algebra .....	3
MATH 321	Probability and Statistics .....	3
MATH 414	History and Development of Mathematics .....	3
MATH 424	Foundations of Geometry .....	3

Education course:

EDUC 360	Survey of Exceptional Children .....	3
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\*Course may be waived by departmental competency test.

**Special Requirement:** In addition to the course work required for the specialization, all prospective student teachers, prior to student teaching, must demonstrate competency in a computer programming language or receive a minimum of C in MATH 317 Computation Mathematics OR ENGR 102 Engineering II OR CIS 211 Computer Language Concepts.

See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required). Special Methods of Teaching mathematics is EDUC 420.

Contact Person: Dr. Suda Kunyosying, Stutzman-Slonaker Hall 211D, 304/876-5282.

## Curriculum for Mathematics Teaching Field Grades 5-9 General Mathematics through Algebra I

Total hours required .....	24
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Content skill level:

ACFN 050*	Consumer Mathematics	
MATH 105	Algebra .....	3
MATH 106	Trigonometry .....	3
MATH 108	Precalculus .....	3
MATH 200	College Geometry .....	2
MATH 205	Calculus with Applications .....	4

Additional mathematics for education:

MATH 101	Introduction to Mathematics (general studies requirement)	
MATH 300	Mathematics for Elementary Teachers .....	3
MATH 314	Statistics .....	3

Education course:

EDUC 360	Survey of Exceptional Children .....	3
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\*Course may be waived by departmental competency test.

See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required) or Professional Studies Core for Middle School Education (29 hours required). Special Methods of Teaching Mathematics is EDUC 420.

Contact Person: Dr. Suda Kunyosying, Stutzman-Slonaker Hall 211D, 304/876-5382.

## MODERN LANGUAGES

By exposing students to a study of the language and literature of other countries, the modern language component of the College seeks to help prepare students for life in a multinational, multicultural global society. The primary objectives of the modern language component include the following:

1. To provide a vital and useful part of a student's liberal arts education;
2. To help students gain an international perspective by introducing them to the language, literature, and culture of other countries;
3. To give students an adequate background in French, German, or Spanish sufficient to pursue graduate study, or to pursue a professional career in which a knowledge of one or more modern languages is necessary;
4. To impress upon students the value associated with a knowledge of modern languages in such areas as written and oral skills, literature, and culture.

## Curriculum for a Minor in French

*Total hours required for minor in French .....	24
Required courses .....	12
FREN 101            Elementary French I .....	3
FREN 102            Elementary French II .....	3
FREN 203            Intermediate French I .....	3
FREN 204            Intermediate French II .....	3
Electives .....	12
FREN 303            Survey of French Literature .....	3
FREN 304            Survey of French Literature .....	3
FREN 401            Advanced Grammar and Composition .....	3
FREN 402            Applied Linguistics in Oral French .....	3
FREN 403            Advanced French Conversation .....	3
FREN 404            French Civilization and Culture .....	3
FREN 419            Independent Study in French .....	3

## Curriculum for a Minor in Spanish

*Total hours required for a minor in Spanish .....	24
Required courses .....	12
SPAN 101            Elementary Spanish I .....	3
SPAN 102            Elementary Spanish II .....	3
SPAN 203            Intermediate Spanish I .....	3
SPAN 204            Intermediate Spanish II .....	3
Electives .....	12
<b>Non-literary Track**:</b>	
SPAN 301            Advanced Conversation and Composition .....	3
SPAN 303            Contemporary Hispanic World .....	3
SPAN 304            Intro to Spanish/Latin American Literature .....	3
SPAN 305            Spanish for Business .....	3
<b>Literary Track**:</b>	
SPAN 310            Survey of Spanish Literature I .....	3
SPAN 311            Survey of Spanish Literature II .....	3
SPAN 312            Survey of Latin American Literature I .....	3
SPAN 313            Survey of Latin American Literature II .....	3
SPAN 400            Seminar in Spanish I .....	3
SPAN 401            Seminar in Spanish II .....	3
SPAN 402            Seminar in Spanish III .....	3
SPAN 403            Seminar in Spanish IV .....	3
SPAN 410            Practicum in Spanish .....	3
SPAN 419            Independent Study in Spanish .....	3

\*Advanced Placement Credit for foreign language courses may lessen the number of courses actually required for the minor. Also, many liberal arts majors require the first two-year language sequence for degree fulfillment; thus students in the liberal arts majors who take the Spanish minor need only take an additional 12 hours for the minor.

\*\*Students may take courses from both literary and nonliterary tracks toward fulfillment of the minor. In addition to those in French and Spanish, sequenced courses in Elementary and Intermediate German are offered. Each of these courses carries three hours credit, and twelve hours in any one language is sufficient to satisfy the foreign language requirement for the B.A. degree. For individual listings of these courses, see Section VIII; and for regulations governing advanced placement credit for foreign language courses and the foreign language waiver policy, see Section V (at end of Program of General Studies).

# MUSIC

The Department of Music strives to inspire student growth in creative, artistic, and professional terms by providing a climate conducive to the development of the comprehensive musician. This is achieved through a highly personalized and student-centered approach to the development of a unified core of musical experiences. Toward this end, the program is designed:

1. To develop performance and/or compositional skills which exhibit artistic integrity and competence;
2. To establish and foster music ensembles which demonstrate the highest standards in artistic excellence;
3. To foster student inquiry, interaction, and self-discovery;
4. To provide a strong foundation for future graduate study in the field of music;
5. To train students seeking public school music careers according to approved standards of teacher education;
6. To develop student capacity to communicate music and its role in society to others;
7. To develop the aesthetic sense of the general student in terms of musical understanding, appreciation, and perception;
8. To provide avocational opportunities for interested students through participation in the various music ensembles and other music activities; and
9. To enhance the image of the Division of the Arts and Humanities, the Department of Music, and the College by serving as a hub of artistic activity for the community.

## Programs

The bachelor of arts degree in music is a four-year program with concentrations offered in music performance, music composition, and piano pedagogy. The program prepares students for recital work, private studio instruction, creative music in the communicative arts, church music, community music, or graduate school.

The bachelor of arts in secondary education with a teaching field in comprehensive music grades K-12 is a four-year program designed to provide the graduate with skills and technical knowledge in music combined with an understanding and experience in the educational process. Upon satisfactory completion of curriculum requirements, the student is awarded a bachelor of arts degree in secondary education and can apply to the State Department of Education for certification.

## Facilities

The Department of Music is housed in the Frank Creative Arts Center which provides the physical resources to meet ever-changing vocational and educational demands. The facility contains numerous practice-rooms, classrooms, and studio-offices in addition to unique areas such as a computer lab, electronic piano lab, a recording studio, vocal and instrumental rehearsal areas, a music resource center, and a music recital hall. Equipment is continually updated.

## Curriculum for a Comprehensive Major in Music

Total hours required .....	128-132	
General education requirements .....	45*	
Foreign language requirement .....	12	
Music core requirements .....	32	
Music concentration area plus electives .....	39-43	
Basic music core:		
MUEN 374	Concert Choir .....	1
MUSC 100	First Year Seminar for Music Majors .....	1
MUSC 103	Theory I .....	3
MUSC 104	Aural Skills I .....	1
MUSC 105	Theory II .....	3
MUSC 106	Aural Skills II .....	1
MUSC 203	Theory III .....	3
MUSC 204	Aural Skills III .....	1

MUSC 205	Theory IV .....	3
MUSC 206	Aural Skills IV .....	1
MUSC 303**	Forms and Analysis .....	2
MUSC 310	Music History I .....	3
MUSC 311	Music History II .....	3
MUSC 312	Music History III .....	3
MUSC 498	Senior Music Seminar .....	1
MUAP 397	Junior Recital .....	1
MUAP 497	Senior Music Activity .....	1

\*Music majors do not need MUSC 111.

\*\*Music theater majors may substitute MUSC 316 for MUSC 303.

**In addition to the basic music core, the following courses are required according to the declared concentration (choose one concentration area):**

Performance concentration (select one emphasis) ..... 39-43

Orchestral instrument emphasis:

MUAP xxx	Applied Major Instrument .....	8
MUEN 360	Band .....	8
	Non-music electives .....	23

Piano emphasis:

MUAP 340*	Piano .....	8
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\* Applied lessons. Must have 8 hours credit to graduate and must receive a jury level of 8.

MUEN 360	Band .....	1
MUEN 373	Piano Ensemble and Accompanying .....	6
MUEN 374	Concert Choir .....	3
MUSC 314	Keyboard Literature .....	3
MUSC 321	Piano Pedagogy .....	2
MUSC 329	Electronic Music Media .....	2
	Non-music electives .....	17

Voice emphasis:

MUAP 344	Applied Voice .....	8
MUEN 374	Concert Choir .....	7
MUSC 237	Diction for Singers .....	3
MUSC 316	Vocal Literature .....	3
MUSC 323	Vocal Pedagogy .....	2
THEA 203	Acting I OR	
THEA 204	Introduction to Theater .....	3
THEA 207	Theater Practice OR	
THEA 208	Theater Practice .....	3
	Non-music electives .....	14

Guitar emphasis:

MUAP 342	Applied Guitar .....	8
MUEN 360	Band .....	1
MUEN 360	Band OR	
MUEN 374	Concert Choir .....	1
MUEN 372	Guitar Ensemble .....	4
MUSC 320	Guitar Pedagogy .....	2
	Non-music electives .....	23

Music theater emphasis:

MUAP 344	Voice .....	8
MUEN 374	Concert Choir .....	5
MUEN 380	Music Theater/Opera Workshop .....	3
MUSC 317	Opera and Oratorio Literature .....	3
MUSC 318	Music Theater Literature .....	2
MUSC 237	Diction for Singers .....	3

MUSC 238	Voice Performance Technique .....	1
MUSC 323	Vocal Pedagogy .....	2
THEA 203	Acting I OR	
THEA 204	Introduction to Theater .....	3
THEA 207	Theater Practice OR	
THEA 208	Theater Practice .....	3
	Non-music electives .....	10
Composition concentration .....		43
MUAP xxx	Applied Major Instrument (must achieve level 6 or higher) ....	6
MUAP xxx	Applied Minor Instrument (must achieve level 3 or higher) ....	2
MUAP 430	Music Composition .....	4
MUAP 450	Orchestration/Arranging .....	2
MUEN 360	Band .....	1
MUEN 374	Concert Choir OR	
MUEN 375	Masterworks Chorale OR	
MUEN 376	Chamber Singers OR	
MUEN 377	Contemporary Vocal Ensemble .....	1
MUSC 227	Introduction to Conducting .....	1
MUSC 230	Woodwind Techniques I .....	1
MUSC 231	Woodwind Techniques II .....	1
MUSC 232	Brass Techniques .....	1
MUSC 233	String Techniques .....	1
MUSC 234	Percussion Techniques .....	1
MUSC 327	Advanced Choral Conducting OR	
MUSC 328	Advanced Instrumental Conducting .....	3
MUSC 329	Electronic Music Media .....	2
COMM 329	Sound Design .....	3
	Non-music electives .....	13
Piano pedagogy concentration .....		43
MUAP 340	Applied Piano .....	8
*Applied Lessons. Must have 8 hours credit to graduate, and must receive a jury level of 7.		
MUEN 360	Band .....	1
MUEN 373	Piano Ensemble & Accompanying .....	6
MUEN 374	Concert Choir .....	2
MUSC 144	Voice Class .....	1
MUSC 314	Keyboard Literature .....	3
MUSC 321	Piano Pedagogy .....	2
MUSC 329	Electronic Music Media .....	2
MUSC 420	Apprenticeship in Music Pedagogy .....	4
PSYC 203	Introduction to Psychology OR	
MUSC 350	Music Psychology .....	3
PSYC 301	Adolescent Development .....	3
EDUC 150	Seminar in Education .....	1
	Non-music electives .....	7

## Curriculum for a Minor in Music

Total semester hours required .....		27
MUSC 103	Music Theory I .....	3
MUSC 104	Aural Skills I .....	1
MUSC 105	Music Theory II .....	3
MUSC 106	Aural Skills II .....	1
MUSC 310	Music History I .....	3
MUSC 311	Music History II .....	3
	Music electives .....	9

Applied Major Instrument or Ensembles .....	4
Electives must be chosen from the following: MUSC 203, 205, 303, 312-316, 329.	

## Curriculum for a Teaching Field in Music Grades K-12

Total minimum semester hours required .....	142
Professional education requirements .....	30
General education requirements .....	45
Music requirements .....	67
MUAP xxx Applied Major Instrument .....	7
MUAP 497 Senior Music Activity .....	1
MUEN 360 Band .....	1
MUEN 374 Concert Choir .....	1
MUEN 360 Band (instrumentalists) OR	
MUEN 374 Concert Choir (vocalists) .....	6
MUSC 100 First Year Seminar for Music Majors .....	1
MUSC 103 Theory I .....	3
MUSC 104 Aural Skills I .....	1
MUSC 105 Theory II .....	3
MUSC 106 Aural Skills II .....	1
MUSC 203 Theory III .....	3
MUSC 204 Aural Skills III .....	1
MUSC 205 Theory IV .....	3
MUSC 206 Aural Skills IV .....	1
MUSC 227 Introduction to Conducting .....	1
MUSC 230 Woodwind Techniques I .....	1
MUSC 231* Woodwind Techniques II .....	1
MUSC 232 Brass Techniques .....	1
MUSC 233* String Techniques .....	1
MUSC 234* Percussion Techniques .....	1
MUSC 237** Diction for Singers .....	3
MUSC 303 Forms and Analysis .....	2
MUSC 310 Music History I .....	3
MUSC 311 Music History II .....	3
MUSC 312 Music History III .....	3
MUSC 320 Guitar Pedagogy OR	
MUSC 321 Piano Pedagogy .....	2
MUSC 322 Instrumental Pedagogy .....	2
MUSC 323** Vocal Pedagogy .....	2
MUSC 324* Marching Band Pedagogy .....	2
MUSC 325 Choral Methods and Materials .....	3
MUSC 326 Teaching Elementary Education .....	2
MUSC 327 Conducting II-Choral OR	
MUSC 328 Conducting II-Instrumental .....	3
MUSC 329 Electronic Music Media .....	2
MUSC 498 Senior Music Seminar .....	1

\* Not required for choral music education emphasis.

\*\*Not required for instrumental music emphasis.

See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required). Special Methods of Teaching Music is EDUC 426.  
Contact Person: Dr. James Pantle, Frank Center M-01, 304/876-5225.

### Special Requirements for Music Majors (entrance audition required)

#### I. GPA Requirement

Music majors must achieve an average of 2.75 in all MUSC courses with no less than a grade of C in any given MUSC course. Students receiving grades lower than C in any MUSC course must retake the course.

## II. Private Applied Lesson Requirement

Music majors are required to enroll for private applied lessons on their major instrument with an appropriate resident Shepherd College faculty member every semester prior to their graduation. Only those music education majors who have completed their senior recital may waive the requirement during the semester of directed teaching. Should the student desire supplementary lessons by someone other than College faculty, such lessons are at the discretion of the student and should be discussed with the department chair and/or the College applied instructor.

## III. Ensemble Participation

- A. Music majors are required to participate in the appropriate ensemble every semester of their college careers, with or without credit, save for the semester during which they are doing directed teaching.
- B. Students are encouraged to participate in other instrumental and vocal ensembles in addition to the basic band or choir involvement. Under certain rare circumstances, such an ensemble may count singly as satisfying the ensemble participation requirement for a given semester. This is contingent upon the approval of the appropriate ensemble director, the student's advisor, and the department chair.
- C. Participation in any ensemble is interpreted to mean attendance at all rehearsals and participation in all programs and concerts presented by that ensemble. Individual exceptions to this rule are left to the discretion of the ensemble director as determined during the registration procedures.
- D. Ensemble directors will determine whether or not the ensemble requirement has been met. The director will notify the student's advisor, the student, and the department chair.
- E. Students may petition the department to be excused from that semester's portion of the ensemble participation requirement.
- F. Bachelor of arts in music students should refer to the specific requirements relative to ensemble participation as listed under the concentration area elsewhere in the *Catalog*. The term "appropriate ensemble" is determined to refer to either MUEN 360 Band or MUEN 374 Concert Choir. Instrumental emphasis majors will take band each semester; vocal emphasis majors will take choir each semester. Keyboard and guitar emphasis majors may choose which of the two is most suitable to their goals. Piano emphasis majors may substitute keyboard ensemble as their appropriate ensemble after their fourth semester.

## IV. Concert Attendance Requirement

All Shepherd College students majoring in music are required to attend a minimum of 100 concerts/recitals to graduation. See the *Department of Music Student Handbook*, available in the Music Resource Center, for details.

## V. Music Department 1:10 Recital Requirement

Music majors may not register for any class that meets during the Wednesday 1:10 time slot. Students must attend the weekly 1:10 Departmental Recital each Wednesday in Frank Center M08. All students, save first-semester freshmen, must perform on the 1:10 recital each semester. See the *Department of Music Student Handbook*, available in the Music Resource Center, for details.

## VI. Piano Proficiency

All music majors must complete the piano proficiency exam before graduation from a degree program. In addition, music education majors must pass the piano proficiency exam in order to pass Juncture 2 in the senior year.

- A. To acquire the specific skills needed for the piano proficiency exam, it is suggested that the student enroll in the class piano sequence (MUSC 138, 140, 141). Students who have some keyboard experience may place out of MUSC 138 and move into MUSC 140 Class Piano I. In addition to class piano, students may enroll in private applied lessons in order to prepare for the exam. For all sections of class piano, students must receive a grade of C or above in order to be qualified to take the exam.
- B. Exams will be scheduled at the end of each semester during finals week. Students will sign up for individual exam sessions with the coordinator of keyboard studies. Students must pass ALL components of the exam. If a student does not pass one of the

components, he/she may retake that portion of the exam at a later time.

- C. Exam contents and study exams may be obtained from the keyboard studies coordinator.
- D. Students will audition at the beginning of their freshman year for placement in the appropriate class piano level. Students who can demonstrate proficiency in the exam requirements will be exempt from class piano study and the keyboard proficiency examination. Students who cannot demonstrate this proficiency should enroll in class piano courses until their proficiency requirement is satisfied.

#### VII. Performance Levels

All music majors must achieve the appropriate performance level to meet graduation requirements. Levels are achieved through the music jury process which is held one week before final exams each semester. The appropriate levels are: performance emphasis, VIII; piano pedagogy, VII; composition and music education, VI. Students must be within one full level of the graduation requirement for their degree concentration before presenting a senior recital/activity and within two full levels of the graduation requirement before presenting a junior recital.

#### VIII. Sophomore Music Competency Exam

All sophomore music majors must demonstrate an acceptable level of knowledge in aural skills, written theory, basic music vocabulary, and music history and literature prior to registration for their junior-year classes. This level will be determined through a competency exam. The exam will be administered each spring semester and the results distributed before the registration period for fall courses. The exam will be offered in the fall semester as needed and the results distributed before the registration period for spring courses. Students must receive a passing score (70 percent or higher) on the exam to enroll in junior-level music courses.

#### IX. Senior Music Activity

All music majors must complete a senior music activity appropriate to their major and area of concentration. Students must be within one full level of the graduation requirement for their degree concentration before presenting their senior music activity.

- A. For music education majors and students concentrating in piano pedagogy in the bachelor of arts program, the senior music activity will be completed in one of the following three formats:
  - 1. *Recital* (minimum total time: one hour)  
The recital will involve a minimum of 45 minutes of actual music on one or more instruments.
  - 2. *Lecture-Recital* (minimum total time: one hour)  
The lecture-recital will involve a minimum of 25 minutes of actual music, plus comments appropriate to the works presented.
  - 3. *Project-Presentation* (minimum total time: one hour)  
The project-presentation will involve a creative endeavor that may take the form of original composition, arranging, conducting, innovative pedagogy, or focused research. The results of the project will be publicly presented in an appropriate format, most likely a lecture presentation. Thesis-like papers alone will not fulfill the requirement.
- B. All students concentrating in performance in the bachelor of arts program are required to present a senior recital. Successful completion of the junior recital is a prerequisite.
- C. All students concentrating in composition in the bachelor of arts program are required to present a performance of their own music containing no less than 45 minutes of actual music.
- D. Procedures for the senior music activity are listed in the *Department of Music Student Handbook* available in the Music Resource Center.

#### X. Exit Exam

As a culmination of the senior seminar, students will take an appropriate examination to demonstrate their musical knowledge and skills. Score standards adopted by the music faculty will determine pass/fail outcomes of the test and the course.

### Professional Associations for the Music Major

#### MENC Student Chapter

Music students can affiliate with professional music educators and with music students from other colleges and universities in the United States through membership in a student chapter of the Music Educators National Conference (MENC). This organization affords excellent opportunities for professional orientation and development during the college years.

#### IAJE Student Chapter

Students from all disciplines with an interest in jazz may join the International Association of Jazz Educators. Membership provides the student with the opportunity to affiliate with others with like interests in this art form through participation in area and national conventions, concerts, and campus activities.

#### Phi Mu Alpha Sinfonia

The International Professional Music Fraternity for Men, Phi Mu Alpha Sinfonia has established a chapter at Shepherd College. Students from all academic disciplines may be selected for membership in this prestigious organization which is dedicated to the art of music and its crosscultural dissemination.

#### Sigma Alpha Iota

Sigma Alpha Iota International Academic Fraternity for Women in the Field of Music chapter at Shepherd College is dedicated to the art of music and its development. The women of ΣAI have the opportunity to share their interests with other members in a worldwide network.

#### American Choral Directors Association

ACDA is the largest organization in the United States devoted to the art of choral music. Membership dues include a yearly subscription to the *Choral Journal*, an invaluable resource for the latest in repertoire and standards, pedagogy, and the many facets of choral music.

### Music for the General Student

The general student is encouraged to participate in music ensembles, music courses, and other activities of the Music Department.

1. **Private Applied Music.** Lessons are available to all college students by consent of the appropriate professor, and may be taken for half or full hours of credit per semester. One half-credit hour is based on a weekly 25-minute lesson plus a minimum of six hours of practice per week. One full credit hour is based on a weekly 50-minute lesson plus a minimum of twelve hours of practice per week. The same course number can be applied any number of times for credit. Music fee required.
2. **Music Ensembles.** Band, Choir, Jazz Ensemble, Jazz Choir, Chamber Singers, Masterworks Chorale, and other music ensembles are open to the general student, as based on the entrance guidelines formulated by the particular faculty member involved. The department seeks involvement of the general student body in these activities.
3. **Music Courses.** The general student is encouraged to select music courses for elective credit. Prerequisites and other information are included with the specific course descriptions contained elsewhere in this *Catalog*.

## NURSING

The bachelor of science degree in nursing (BSN) prepares nurses to function as generalists within diverse health care systems. The program provides students the opportunity to acquire knowledge of theory and clinical practice.

The BSN program also focuses on the professional nurse as a consumer of research and practitioner of community health. The BSN program culminates with preparation for management and leadership roles as a health care provider. This foundation is necessary for the development of critical thinking, communication, service, lifelong learning, and for understanding people of diverse cultures.

### Mission Statement and Goals

The mission of the Department of Nursing is to enhance the health status of the region by educating nurse generalists through the associate's and bachelor of science degree programs. Emphasis is placed on building a foundation for the pursuit of lifelong learning, personally and professionally, by providing a caring climate and student-faculty relationships that encourage the intellectual, ethical, and personal development of each student.

The goals of the BSN program are to prepare a graduate who is able to:

1. Integrate a background in the liberal arts with the knowledge, skills, and values of professional nursing in order to influence the health of individuals, families, groups, communities, and populations;
2. Practice the discipline of nursing in a caring, empathetic, and culturally-sensitive manner;
3. Assume leadership roles in recognizing, evaluating, and responding to the changing health needs of society by means of critical thinking, therapeutic nursing interventions, collaboration, and effective communication;
4. Engage in research-based practice within the scope of the ANA Standards of Practice;
5. Participate in personal and professional lifelong learning, value service to the community, and appreciate cultural diversity.

### Accreditation

West Virginia Board of Examiners for Registered Professional Nurses  
101 Dee Drive  
Charleston, WV 25311  
304/558-3596

National League for Nursing Accrediting Commission  
61 Broadway  
New York, NY 10006  
800/669-1656

### Admission to the BSN Program

The generic student seeking enrollment in the bachelor of science degree in nursing program must meet the requirements for admission to Shepherd College, as stated in the *College Catalog*. Freshman and sophomore students will be designated as pre-nursing students and must be advised by nursing faculty.

Students become candidates for admission into the nursing program in the spring of their sophomore year upon meeting the following criteria:

1. Eligible to complete the 67 lower division course hours as identified in pre-nursing curriculum prior to matriculation;
2. Completion of NURS 231 Introduction to Nursing;
3. Cumulative grade point average of 2.5. Must achieve grade C or above in the following courses: BIOL 225/227, BIOL 226/228, NURS 231;
4. Submit a Department of Nursing application for admission;
5. Submit a letter of reference; and
6. Meet with the department chair or designee for advisement by March 1 of the year of intended enrollment.

### Special Requirements of Nursing Majors

1. Submission of completed health data requirement prior to July 1 following acceptance into the program;
2. Submission of yearly PPD results (or chest x-ray, if appropriate) and evidence of CPR prior to July 1 of each year;
3. Attend yearly JCAHO assembly as scheduled;
4. Adhere to the policies and procedures in the Department of Nursing Education Student Handbook;
5. Undergo a criminal background check, which is scheduled by the Department of Nursing;
6. Complete all course work within five years of admission into the program;

7. A special fee is required each semester for Nursing Achievement Testing.

### RN Track Program

The RN track is designed to expand the registered nurse's education. This program provides flexibility with a wide continuum of education and experience, based upon advisement and development of an individual growth plan. Previous education and experience are evaluated through the use of a professional portfolio. The expected competencies of RN to BSN graduates are the same as those of graduate for the generic baccalaureate program.

### RN to BSN Admission Process

The following must be submitted to the department chair no later than November 15 prior to spring enrollment in NURS 324 Nursing Research, or March 15 prior to fall enrollment in NURS 313 Nursing 1-A, Health Assessment:

1. Department of Nursing Education admission application;
2. Official transcript copy (one) on file; transcript must be reviewed and academic advisement form signed by advisor and advisee;
3. Proof of current RN licensure;
4. A professional portfolio which includes the following:
  - a. Résumé of nursing work experience (include a narrative summary of most recent work experience roles and responsibilities);
  - b. Personal and professional goals for completing the BSN program (including how program completion will affect applicants' work and future educational goals);
  - c. Professional activities for the last three years:
    1. Continuing nursing education completed (seminars, courses, programs)
    2. Professional development (committees, nursing organizations/associations)
    3. Community involvement (church, school, children's activities);
  - d. Letter of professional reference, assessing ability to successfully complete the BSN program.

**Articulation:** RNs will receive 38 credits, based on graduation from an approved AD program. After completing NURS 410, students will be given credit for NURS 415, NURS 417, NURS 419, NURS 421, NURS 422, NURS 424, NURS 426, NURS 428.

### Statistics Course

Both generic and RN to BSN students are strongly encouraged to enroll in a statistics course.

### Progression

In order to progress and to graduate, the student enrolled in the BSN program must:

1. Receive a minimum of a C in BIOL 225, BIOL 226, BIOL 227, BIOL 228 (Anatomy and Physiology);
2. Receive a minimum of C in each nursing course;
3. Maintain a minimum of 2.0 cumulative grade point average;
4. Satisfy pre- and corequisite requirements as scheduled.

### Ratio Clock to Credit Hour

The ratio of theory clock to credit hour is 1:1. A 2:1 ratio of clinical clock hours to credit hours is maintained. A clock hour equals 50 minutes.

### Graduation

Upon successful completion of the program, graduates are eligible to sit for the NCLEX-RN exam.

### Eligibility for Licensure

The nursing law of West Virginia addresses criteria for application for licensure. The West Virginia State Board of Nursing has the power to deny opportunity to procure licenses through testing if the applicant has willfully committed a felony under the laws of West Virginia. Any student entering the nursing program who has committed any illegal offenses (felony or

misdeemeanor) is encouraged to discuss these matters with the department chair for clarification prior to admission. Details are requested when the graduate makes application for licensure.

## Curriculum for a Comprehensive Major in Nursing

Total hours required for the degree (including free electives) ..... 130

Related required courses ..... 21

Nursing requirements ..... 59

### Freshman: first semester

ENGL 101	Written English I .....	3
CHEM 120*	College Chemistry I .....	3
CHEM 120L*	College Chemistry I Laboratory .....	1
GSPE 100-193	Physical Education .....	1
MUSC 111	Introduction to Music .....	2
MATH 101	Introduction to Mathematics OR any 3 or 4 credit hour mathematics course numbered MATH 106 or above except MATH 111 .....	3-4
HIST 101	History of Civilization: Ancient through Medieval OR	
HIST 102	History of Civilization: Renaissance to French Revolution OR	
HIST 103	History of Civilization : French Revolution to Present .....	3

### Freshman: second semester

ENGL 102	Written English II .....	3
CHEM 122*	College Chemistry II .....	3
CHEM 122L*	College Chemistry II Laboratory .....	1
GSPE 100-193	Physical Education .....	1
ART 103	Introduction to the Visual Arts .....	2
PSCI 100	Politics and Government OR	
PSCI 101	American Federal Government .....	3
HIST 101	History of Civilization: Ancient through Medieval OR	
HIST 102	History of Civilization: Renaissance to French Revolution OR	
HIST 103	History of Civilization : French Revolution to Present .....	3

### Sophomore: first semester

ENGL 208	Survey of World Literature I OR	
ENGL 209	Survey of World Literature II .....	3
BIOL 225*	Human Anatomy and Physiology .....	3
BIOL 227*	Human Anatomy and Physiology Lab .....	1
BIOL 302*, 302L	Microbiology and Laboratory .....	4
SOCI 203	Sociology .....	3
PSYC 203	Introduction to Psychology .....	3
NURS 231	Introduction to Nursing .....	2

### Sophomore: second semester

ENGL 204	Survey of American Literature .....	3
BIOL 226*	Human Anatomy and Physiology .....	3
BIOL 228*	Human Anatomy and Physiology Laboratory .....	1
ECON 123	Contemporary Economics OR	
ECON 205	Principles of Macroeconomics .....	3
FACS 318	Nutrition .....	3
COMM 202	Fundamentals of Speech .....	3

\*Science courses must be taken in order listed

### Junior: first semester

NURS 311	Nursing I Introduction to Health Care .....	3
NURS 313	Nursing I-A Health Assessment .....	3
NURS 315	Nursing I-B Clinical Component .....	3
NURS 317	Essentials of Clinical Pharm/Patho in Nursing .....	2
EDUC 300	Human Growth and Development .....	3
	Elective .....	3

**Junior: second semester**

NURS 316	Nursing II Health Care of the Adult .....	3
NURS 318	Nursing II Clinical Component .....	3
NURS 320	Nursing III Psychiatric/Mental Health Care .....	3
NURS 322	Nursing III Clinical Component .....	2
NURS 324	Nursing Research .....	2
NURS 326	Essentials of Clinical Pharm/Patho in Nursing .....	2

**Senior: first semester**

NURS 411	Nursing IV Community Health Care .....	3
NURS 413	Nursing IV Clinical Component .....	3
NURS 415	Nursing V Health Care of Children and Families .....	3
NURS 417	Nursing V Clinical Component .....	2
NURS 419	Nursing VI Health Care of Women .....	3
NURS 421	Nursing VI Clinical Component .....	2

**Senior: second semester**

NURS 422	Nursing Health Care of the Adult: Gerontology Focus .....	3
NURS 424	Nursing VII Clinical Component .....	3
NURS 426	Nursing VIII Health Care of the Adult with Complex Problems .....	3
NURS 428	Nursing VIII Clinical Component .....	2
NURS 434	Management and Issues in Health Care .....	3
NURS 436	Senior Capstone Seminar .....	1

Special Fee: Nursing Achievement Testing (per semester): \$55.

**RN to BSN Curriculum Plan**

I. Prior to matriculation into the BSN Program, students must complete the general studies and prerequisites listed above.

Total credit hours required for degree .....	130
General studies and prerequisites .....	71
RN curriculum .....	59
Previous nursing courses credit .....	38
BSN courses .....	21

II. Upon completion of general studies and prerequisites, the RN will enroll in:

Fall:

NURS 313	Nursing 1-A Health Assessment .....	3
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Spring:

NURS 324	Nursing Research .....	2
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Summer:

NURS 310	Advanced Nursing Concepts and Practice .....	6
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Fall:

NURS 411	Nursing IV Community Health .....	3
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NURS 413	Nursing IV Clinical Component .....	3
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Spring:

NURS 434	Management and Issues in Health Care .....	3
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NURS 436	Capstone Seminar .....	1
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**OFFICE TECHNOLOGY****Curriculum for a Minor in Office Technology**

Total hours required .....	21
3SED 104* Document Processing .....	3
3ADM 345 Business Communications .....	3
3SED 250 Introduction to Office Technology .....	3
3SED 329 Office Systems Software .....	3
3SED 380 Desktop Publishing .....	3

Select any two courses below:

OFTC 150	Troubleshooting .....	3
OFTC 205	Computerized Accounting Applications .....	3
OFTC 240	Repairing and Maintaining the IBM PC .....	3
BSED 385	Business Externship .....	3
COMM 352	Computer Mediated Communications .....	3
CIS 104	Introduction to Computer and Information Sciences .....	3

\*Student must take BSED 103 Keyboarding I if no previous keyboarding skills.

## PHYSICAL EDUCATION

The Department of Health, Physical Education, Recreation, and Sport (HPERS), in conjunction with the Department of Education, seeks to prepare highly-trained teachers in the area of skill acquisition and movement education. These future teachers are critical-thinking problem solvers able to analyze movement and give organized feedback to the learner.

To pursue this teaching specialization and graduate in four years, students should be enrolled in the program the first semester of the freshman year. Entering this program after the freshman year will extend the date of graduation beyond four years.

### Curriculum for a Teaching Field in Physical Education K-12

Total hours required ..... 45

#### Required courses

HLTH 103	Personal Health .....	3
HLTH 225	First Aid/CPR .....	3
PHED 104	Foundations of Physical Education .....	3
PHED 246	Aquatics .....	1
PHED 301	Elementary School Physical Education I .....	3
PHED 302	Elementary School Physical Education II.....	3
PHED 315	Teaching Tumbling and Gymnastics .....	2
PHED 325	Team Sport Activities.....	3
PHED 326	Individual Sport Activities .....	3
PHED 370	Applied Anatomy and Physiology .....	4
PHED 380	Perceptual Motor Learning .....	3
PHED 401	Teaching Adaptive Physical Education .....	3
PHED 405	Applied Kinesiology .....	3
PHED 406	Curriculum and Administration of Physical Education...	3
PHED 410	Tests and Measurements in Physical Education .....	3
GSPE 200	Exploring Leisure .....	1
GSPE 201	Wellness/Fitness .....	1

Electives to make 128 hours total

Look under Curriculum for a Teaching Field in Health Education 5-12 for specific electives if you plan to be certified in health.

In addition to the course work required for this specialization, all prospective candidates are expected to participate in professional growth and service requirements prior to student teaching. Documentation must be submitted to candidate's advisor.

#### Other Requirements for Physical Education Grades K-12:

##### I. Academic Requirements

Students in physical education K-12 student teaching specialization must meet the following criteria before enrolling in EDUC 455 Student Teaching Grades K-4, 5-8, 9-12:

1. Earn a GPA of 2.5 in all physical education and professional education courses combined;
2. Earn an overall GPA of 2.5 in all course work attempted; and
3. Satisfy all requirements in the *Handbook for Teachers of Health Education and Physical Education*;
4. Be interviewed by the HPERS faculty for entrance into the Teacher Education Program (Juncture 1) and student teaching block (Juncture 2).

## II. Out-of-Class Requirements for Teaching Physical Education K-12:

Individual potential as a professional educator will be closely examined as the student progresses through the curriculum. The Pro 05 evaluation form is for this purpose. In addition to the academic requirements, the student must complete any four of the following professional growth experiences:

1. Participate for one season as an intercollegiate athlete, manager, or trainer;
2. Organize and administer intramurals for one full season;
3. Attend a state, district, or national professional physical education conference;
4. Attend an elementary physical education conference, i.e., Camp Caesar;
5. Participate in a sanctioned workshop or activity related to physical education

See Professional Education course listings under Education: Professional Studies Core for Secondary Education (30 hours required). Special Methods of Teaching Physical Education is EDUC 431.

Contact Person: Dr. J. Michael Jacobs, Butcher Center 204, 304/876-5233.

## PHYSICS

The College offers a program of courses in physics designed to serve those students who wish to supplement their majors with a minor in a fundamental field of science. In particular, this minor would complement a major in chemistry, environmental studies, biology, or mathematics. The courses offered provide challenging application in applied mathematics. The 300-level physics courses are offered as tutorial courses: the student will work independently, with periodic meetings with a physics faculty member for discussions and testing. Students interested in pursuing the physics minor should contact a physics faculty member (physics is housed within the Institute of Environmental Studies) to discuss the program and the scheduling of the 300-level courses.

### Curriculum for a Minor in Physics

Total hours required .....	27
PHYS 221, 221L      General Physics I and Lab .....	4
PHYS 222, 222L      General Physics II and Lab .....	4
PHYS 322              Electricity and Magnetism .....	3
PHYS 323              Modern Physics .....	3
PHYS 330              Advanced Laboratory .....	2
ENGR 242              Engineering Dynamics .....	3
MATH 207              Calculus I .....	4
MATH 208              Calculus II .....	4

## POLITICAL SCIENCE

The study of political science develops knowledge and understanding of national and international government, politics, and policy. The program prepares students for careers in public service and private business, as well as for graduate work leading to careers in a variety of areas including law, public administration, policy analysis, foreign service, journalism, and college teaching. Proximity to Washington allows enhancement of traditional classroom work with opportunities to observe the federal government in operation.

### Curriculum for a Major in Political Science

Total hours required .....	30
Required courses .....	15
SCI 102              State and Local Government .....	3
SCI 201              Public Administration .....	3
SCI 315              Early Political Theory OR	
PSCI 316              Recent and Contemporary Political Theory .....	3
SCI 325              Comparative Government: Western Europe OR	
PSCI 327              Comparative Government: The Soviet Union and its Aftermath OR	

PSCI 328	Comparative Government: Asia .....	3
PSCI 403	International Relations .....	3
Elective courses .....	Any 300 or 400 level course in political science* OR	15
ECON 350	Government and Business	
ECON 310	Public Finance	
HIST 402	Diplomatic History of the United States	
See Note.		

## Curriculum for a Minor in Political Science

Total hours required .....	24	
Required courses .....	15	
PSCI 102	State and Local Government .....	3
PSCI 201	Public Administration .....	3
PSCI 315	Early Political Theory OR	
PSCI 316	Recent and Contemporary Political Theory .....	3
PSCI 325	Comparative Government: Western Europe OR	
PSCI 327	Comparative Government: The Soviet Union and its Aftermath OR	
PSCI 328	Comparative Government: Asia .....	3
PSCI 403	International Relations .....	3
Elective courses .....		9
	Any 300 or 400 level course in political science.*	

\* No more than six hours of PSCI 443, Internship in Government, can be counted toward the political science major or minor (additional internship hours will be considered as general electives).

NOTE: Most 300 and 400 level political science courses can only be offered every other year. Students should plan their schedules accordingly. Enrollment in available upper-division courses should not be postponed on the often mistaken assumption that they will necessarily recur during the following year. It is strongly recommended that minors consult periodically with political science faculty members to assure that their work in political science is proceeding appropriately.

## PRE-PROFESSIONAL STUDIES

In addition to a number and variety of major and minor field concentrations applicable to baccalaureate degrees, together with several associate's degree programs and teacher education programs, Shepherd College provides students with excellent opportunities to begin their undergraduate college preparation leading toward certain career professions. Such students, however, eventually must make application to, and successfully complete the terminal training provided by a special professional or graduate school or university elsewhere.

These pre-professional programs include several with substantial concentration in the basic sciences and mathematics and constitute recommended course selections from the Shepherd College academic offerings which may prepare students for application to professional schools of dentistry, medicine, veterinary medicine, and others. As such, these course work recommendations should be viewed as requirements of institutions other than Shepherd College unless, as is commonly the case, a student pursues a specific Shepherd College degree program as well.

Pre-professional programs do not count as a major (program) for financial aid purposes or to meet graduation requirements.

### Pre-Dentistry, Pre-Medicine, Pre-Veterinary Medicine

The majority of successful applicants to professional schools in these areas are those who have completed a four-year baccalaureate degree program, although a small percentage of exceptional third-year college undergraduates may be admitted, particularly to dental schools.

The recommended undergraduate preparatory course of study is one which concentrates within the basic sciences of biology, chemistry, and physics, but professional schools usually recommend that the undergraduate program include a broader academic background as well, like

that provided by the Shepherd College program of general studies.

Therefore, it is suggested that students pursuing career goals of the practice of dentistry, medicine, and/or veterinary medicine undertake, while at Shepherd College, course work leading to a bachelor of science degree in either biology or chemistry with a science-oriented minor field. Requirements for the baccalaureate major and minor fields in biology or chemistry are listed in this *Catalog*. The Shepherd College general studies requirements and other general baccalaureate degree requirements are described in this *Catalog* as well.

Before the end of their sophomore year, students pursuing any of these pre-professional avenues of study are urged to solicit from professional schools of primary interest, specific admission information in order to insure that any exceptional requirements may be taken into account in planning the balance of the pre-professional course of study at Shepherd College. West Virginia residents may qualify for cooperative programs with universities and professional schools in other states in the areas of veterinary medicine, podiatric medicine, and optometry.

## Pre-Law

Law schools generally require applicants to possess a baccalaureate degree. It is suggested that students interested in pre-law major in political science. Although law schools do not specify any one undergraduate major as being more appropriate than another for consideration for admission to their programs, applicants usually possess bachelor's degrees in political science, history, economics, or accounting. Most recent Shepherd College graduates who have entered law schools have majored in political science. The criteria for admission are usually threefold: 1) the applicant's overall grade-point average; 2) the score on the Law School Admission Test (LSAT); and 3) recommendations from major professors and from those who are familiar with the applicant's character.

The student who is interested in entering law school should plan an academic program that develops breadth of vocabulary and reading comprehension, written expression, discernment for subtleties of language and thought, analytical ability, and knowledge of governmental procedures and forms. One leading law school cautions that a pre-law student should be involved in an undergraduate curriculum "which is intellectually challenging and demanding and which requires rigorous academic discipline." Another warns that applicants presenting courses "without intellectual content of substantial value" will not be considered. The pre-law advisor in the political science department is available for consultation and advisement, and can provide information about the Law School Admission Test.

## Pre-Theological Studies

The American Association of Theological Schools proposes no one course of study as "best" for students who plan to enter seminary but emphasizes that those students should be able, upon graduation from college, to demonstrate the ability to use certain tools of the educated person. Recommendations generally indicated by seminaries include such minimal statements as: English, 12-16 semester hours; history, 8-12 semester hours; foreign language, 12-16 semester hours; religion, 8-12 semester hours; natural sciences, 12-16 semester hours; social studies, 12-16 semester hours; philosophy, 8-12 semester hours; psychology, 4-6 semester hours.

## PSYCHOLOGY

Shepherd College offers a program in psychology leading to the bachelor of arts degree.

The purpose of the psychology program includes the following:

1. To encourage the student to pursue a traditionally-oriented liberal arts curriculum as a broad educational foundation.
2. To expose the student to the nature of scientific explanation and scientific research within psychology as well as to provide a conceptual framework for understanding human behavior.
3. To provide, for the qualified student, actual experience in career settings involving teaching, research, or service work within psychology, or a combination of these (this is accomplished through the practicum program).

4. To contribute to the preparation of the student for admission to graduate school and to schools offering advanced professional certification.

In addition to a major in psychology, a student must also complete the general studies program, select a minor field of study, meet the 12-hour foreign language requirement, and include at least 45 upper-division hours in their program in order to meet graduation requirements for the bachelor of arts degree. Some credit is given for foreign language courses taken in high school. It is also possible to earn as much as 12 foreign language credit hours through the CLEP examination, which is administered by the Office Career Development Center.

## Curriculum for a Major in Psychology

The curriculum for a major in psychology requires 34 hours. Sixteen hours are required, and 18 additional hours are to be selected from a prescribed listing. (Note: With permission of the chair of the Department of Psychology and the student's advisor, six of the 18 elective hours may be career-track electives. These are courses that clearly relate to the student's career plans, but they cannot overlap with courses comprising the student's minor field of study.)

Total hours required .....	34
Required hours: .....	16
PSYC 203                      Introduction to Psychology .....	3
PSYC 400                      Experimental Psychology .....	4
PSYC 420                      History and Systems of Psychology .....	3
PSYC 485                      Senior Thesis .....	3
MATH 314*                   Statistics .....	3
Electives .....	18
Restricted electives, Group I (choose two courses)	
PSYC 361                      Survey of Physiological Psychology .....	3
PSYC 371                      Cognitive Psychology OR	
PSYC 372                   Psychology of Learning .....	3
PSYC 415                      Tests and Measurement .....	3
Restricted electives, Group II (choose two courses)	
PSYC 305                      Social Psychology .....	3
PSYC 310                      Psychology of Personality .....	3
PSYC 360                      Abnormal Psychology .....	3
Free electives (choose a minimum of two courses)	
EDUC 302                      Educational Psychology .....	3
PSYC 301                      Adolescent Development .....	3
PSYC 302                      Psychology of Aging .....	3
PSYC 304                      Computers in the Behavioral and Social Sciences .....	3
PSYC 311                      Introduction to Clinical Psychology .....	3
PSYC 312                      Practicum in Psychology I .....	3
PSYC 313                      Practicum in Psychology II .....	3
PSYC 314                      Field Experience in Art Therapy .....	3
PSYC 316                      Art Therapy .....	3
PSYC 320                      Human Sexual Behavior .....	3
PSYC 321                      Industrial/Organizational Psychology .....	3
PSYC 325                      Health Psychology .....	3
PSYC 326                      Psychology of Substance Abuse .....	3
PSYC 328                      Dance Therapy .....	3
PSYC 330                      Family Therapy .....	3
PSYC 364                      Lifespan Developmental Psychology .....	3
PSYC 365                      Psychopharmacology .....	3
PSYC 367                      Motivation and Emotion .....	3
PSYC 370                      Sensations and Perception .....	3
PSYC 404                      Psychology Seminar .....	3
PSYC 420                      History and Systems of Psychology .....	3
PSYC 430                      Humanistic Psychology .....	3
PSYC 440                      Group Psychotherapy .....	3

FACS 304	Child Development .....	3
PSYC 206, 306, 406	Special Topics in Psychology .....	3
*MATH 205 Calculus with Applications or BADM 224 Business Statistics may be substituted for MATH 314 Statistics.		

## Curriculum for a Minor in Psychology

Total hours required .....	22
Required courses .....	10
PSYC 203	Introduction to Psychology ..... 3
PSYC 400	Experimental Psychology ..... 4
MATH 314*	Statistics ..... 3
Electives .....	12
Restricted electives, Group I (choose one course)	
PSYC 361	Survey of Physiological Psychology ..... 3
PSYC 371	Cognitive Psychology OR
PSYC 372	Psychology of Learning ..... 3
PSYC 415	Tests and Measurement ..... 3
Restricted electives, Group II (choose one course)	
PSYC 305	Social Psychology ..... 3
PSYC 310	Psychology of Personality ..... 3
PSYC 360	Abnormal Psychology ..... 3
Free electives (choose a minimum of two courses)	
EDUC 302	Educational Psychology ..... 3
PSYC 301	Adolescent Development ..... 3
PSYC 302	Psychology of Aging ..... 3
PSYC 304	Computers in the Behavioral and Social Sciences ..... 3
PSYC 311	Introduction to Clinical Psychology ..... 3
PSYC 312	Practicum in Psychology I ..... 3
PSYC 313	Practicum in Psychology II ..... 3
PSYC 314	Field Experience in Art Therapy ..... 3
PSYC 316	Art Therapy ..... 3
PSYC 320	Human Sexual Behavior ..... 3
PSYC 321	Industrial/Organizational Psychology ..... 3
PSYC 325	Health Psychology ..... 3
PSYC 326	Psychology of Substance Abuse ..... 3
PSYC 328	Dance Therapy ..... 3
PSYC 330	Family Therapy ..... 3
PSYC 364	Lifespan Developmental Psychology ..... 3
PSYC 365	Psychopharmacology ..... 3
PSYC 367	Motivation and Emotion ..... 3
PSYC 370	Sensations and Perception ..... 3
PSYC 404	Psychology Seminar ..... 3
PSYC 420	History and Systems of Psychology ..... 3
PSYC 430	Humanistic Psychology ..... 3
PSYC 440	Group Psychotherapy ..... 3
FACS 304	Child Development ..... 3
PSYC 206, 306, 406	Special Topics in Psychology ..... 1-3

\*MATH 205 Calculus with Applications or BADM 224 Business Statistics may be substituted  
for MATH 314 Statistics.

## RECREATION AND LEISURE STUDIES

Shepherd College offers a comprehensive major in recreation and leisure studies. In addition to the required core courses of study, each student is required to select at least one of the following concentrations: commercial recreation/tourism, sport communications, fitness/exercise science, sport and event management, and therapeutic recreation.

### Commercial Recreation/Tourism

This concentration prepares students for careers in the tourism and commercial recreation industry. Some of the job opportunities are travel industry, hospitality, entertainment, commercial recreation, and sport tourism.

### Sport Communication

This concentration prepares students for careers in radio and television sport broadcasting. Job opportunities include sports reporting, free-lance writer, broadcasting, and sport promotions.

### Fitness/Exercise Science

This concentration prepares students for careers in fitness and wellness. Career opportunities include fitness instructor, personal trainer, corporate fitness director or manager, fitness facility director, strength and conditioning coach, and sports medicine rehab.

### Sport and Event Management

This concentration prepares students for career management positions in a variety of settings including sport marketing, sport management and administration, sport facilities management, and sport event management.

### Therapeutic Recreation

This concentration prepares students for eligibility to apply for the NCTRC certification examination. When an individual passes the national exam, he or she becomes a Certified Therapeutic Recreation Specialist (CTRS). Therapeutic recreation majors are trained to be employed by hospitals, nursing, home, health care agencies and other settings dealing with handicapped, disabled, and impaired individuals.

### Out-of-Class Requirements for Recreation and Leisure Studies Majors

The following requirements must be met for graduation:

1. It is REQUIRED that each major be an active member of an approved state or national organization in his or her specialization during the academic years while pursuing this major;
2. It is REQUIRED that all recreation majors attend two or more state and/or national conferences in their concentration during the during the academic years while pursuing this major.

### Curriculum for a Comprehensive Major in Recreation and Leisure Studies

Total hours required (including free electives) ..... 128

Core requirements ..... 46

BADM 310	Principles of Management .....	3
CIS 102	Microcomputer Applications .....	3
HLTH 225	First Aid/CPR .....	3
HLTH 300	Substance Use and Abuse .....	3
RECR 140	Introduction to Leisure Studies .....	3
RECR 210	Leisure Activities .....	3
RECR 316	Recreational Programming .....	3
RECR 320	Facilities Management .....	3
RECR 335	Leisure for the Aging .....	3
RECR 370	Environmental Education .....	3
RECR 407	Administration of Leisure Services .....	3

RECR 449	Pre-Practicum .....	1
RECR 450	Recreation Internship .....	9
Choose one of the following:		
SOWK 402	Social Gerontology .....	3
PSYC 399	Psychology of Aging .....	3
RECR 440	Late Adulthood Issues .....	3

#### Concentrations (Choose one of the following):

##### Commercial Recreation/Tourism Concentration

Required courses .....	25
ACCT 201	Introductory Accounting I ..... 3
BADM 340	Marketing ..... 3
FACS 202	Food and Meal Management ..... 4
RECR 125	Introduction to Commercial Recreation/Tourism ..... 3
RECR 343	21st Century Tourism ..... 3
RECR 344	Hospitality ..... 3
RECR 350	Field Experience in Leisure Studies and Seminar OR
RECR 392	Cooperative Education in Recreation/Leisure Studies .... 3
Select one of the following:	
BADM 323	Human Resource Management ..... 3
RECR 226	Sport Promotion/Fund Raising ..... 3
RECR 228	Sport Administration ..... 3
RECR 342	Campus Recreation and Event Management ..... 3

##### Leisure Management Option

Students in the commercial recreation/tourism concentration may choose to add the leisure management option. Students must take all commercial recreation courses as stated above, plus the following courses:

BADM 212	Business Law I .....	3
BADM 365	Promotional Strategy .....	3
RECR 108	Introduction to Sport Studies .....	3
Select one of the following:		
BADM 311	Small Business Management .....	3
RECR 226	Sport Promotion/Marketing/Fund Raising .....	3

##### Sport Communication Concentration

Required courses .....	24
COMM 203	Introduction to Mass Communication ..... 3
COMM 302	Writing for the Mass Media ..... 3
COMM 329	Sound Design ..... 3
COMM 352	Computer Mediated Communication ..... 3
COMM 360	Studio Production ..... 3
RECR 324	Sport Writing ..... 3
RECR 350	Field Experience in Leisure Studies and Seminar ..... 3
RECR 355	Sport Photography ..... 3

##### Fitness/Exercise Science Concentration

Required courses .....	25
ATHC 324	Care and Prevention of Athletic Injuries ..... 3
FACS 318	Nutrition ..... 3
HLTH 103	Personal Health ..... 3
HLTH 200	Health and Wellness ..... 3
HLTH 390	Exercise Prescription ..... 3
HED 370	Applied Anatomy and Physiology ..... 4

PHED 380	Perceptual Motor Learning .....	3
PHED 405	Applied Kinesiology .....	3
In place of electives, students wanting to manage fitness facilities may supplement their background in fitness/exercise physiology with management courses:		
ACCT 201	Introductory Accounting I .....	3
BADM 212	Business Law I .....	3
BADM 340	Marketing .....	3
Select one of the following:		
BADM 323	Human Resource Management .....	3
RECR 226	Sport Promotion/Fund Raising .....	3
RECR 228	Sport Administration .....	3
RECR 342	Campus Recreation and Event Management .....	3

### Sport and Event Management Concentration

Required courses .....	24
ACCT 201	Introductory Accounting I ..... 3
BADM 212	Business Law I ..... 3
BADM 340	Marketing ..... 3
BADM 365	Promotional Strategy ..... 3
RECR 108	Introduction to Sport Studies ..... 3
Select one of the following:	
BADM 323	Human Resource Management ..... 3
RECR 228	Sport Administration ..... 3
RECR 342	Campus Recreation and Event Management ..... 3
Select one of the following:	
BADM 311	Small Business Management ..... 3
RECR 226	Sport Promotion/Marketing/Fund Raising ..... 3
Select one of the following:	
ACCT 202	Introductory Accounting II ..... 3
RECR 350	Field Experience in Leisure Studies and Seminar ..... 3
RECR 392	Cooperative Education in Recreation/Leisure Studies .... 3

### Therapeutic Recreation Concentration

Required courses .....	25
PHED 370	Applied Anatomy and Physiology ..... 4
PHED 380	Perceptual Motor Learning ..... 3
PHED 401	Teaching Adapted Physical Education ..... 3
RECR 115	Introduction to Therapeutic Recreation ..... 3
RECR 331	Medical Terminology ..... 3
RECR 350	Field Experience in Leisure Studies and Seminar ..... 3
RECR 430	Therapeutic Recreation Programming ..... 3
RECR 431	Issues and Trends in Therapeutic Recreation ..... 3
Required for certification .....	6
PSYC 360	Abnormal Psychology ..... 3
EDUC 300	Human Growth and Development ..... 3

### Curriculum for a Minor in Recreation and Leisure Studies

Total hours required .....	24
HLTH 225	First Aid/CPR ..... 3
RECR 115	Introduction to Therapeutic Recreation ..... 3
RECR 125	Introduction to Commercial Recreation and Tourism ..... 3
RECR 140	Introduction to Leisure Studies ..... 3
RECR 316	Recreation Programming ..... 3
RECR 320	Facilities Management ..... 3
RECR 370	Environmental Education ..... 3
RECR 407	Management in Recreation and Leisure Services ..... 3

# REGENTS BACHELOR OF ARTS DEGREE PROGRAM

The Regents B.A. Degree Program, offered at Shepherd College and all other public baccalaureate institutions in West Virginia, is a flexible higher education plan. Originally designed for those adults whose college educations had been interrupted or discontinued, this versatile program also meets the needs of many adults who have had no previous college work. It provides a means by which experiential learning may be evaluated for the awarding of college equivalent credit. Credits earned at regionally-accredited institutions can be transferred; American Council on Educational guidelines on non-collegiate sponsored training programs and educational experience in the armed services are honored; and credits may be earned through CLEP testing.

The Regents B.A. Degree Program provides mature persons a special opportunity to complete baccalaureate degree studies. It is not an option for traditional college students, and it specifically is not an alternative for students who are disqualified from traditional programs for reasons of poor scholarship. Applications are not accepted from anyone who was graduated from high school (or was awarded a GED) less than four years prior to seeking admission. Baccalaureate degree holders are not eligible for admission.\*

Students seeking admission to the Regents B.A. Degree Program must first be admitted to Shepherd College. There is no program application fee, and tuition costs are the same as for students in other degree programs at Shepherd College. A fee of \$300 is charged if a comprehensive evaluation of experiential learning is requested, regardless of the number of semester hours of credit awarded.

The degree is intentionally unstructured regarding academic discipline emphasis and neither requires nor recognizes majors.

Admission to the Regents B.A. Degree Program requires a minimum cumulative 2.0 grade point average for all college work, as well as a 2.0 average on all Shepherd College credit. Graduation requires a total of 128 semester hours of credit with a minimum of 2.0 on all Shepherd work as well as cumulative 2.0 grade point average.\*\* In order for Regents B.A. Degree Program students to be considered for honors at graduation, they must have earned a minimum of 80 semester hours for which a traditional grade has been given with 32 of these semester hours of resident study completed at Shepherd.\*\*\*

There are no required courses in the program; instead there are required areas in which credits must be earned. General education credits must be earned as follows:

Required Area	Sem. hrs.	Typical Courses in Area
Humanities	6	literature, history, philosophy, art or music appreciation
Communications	6	grammar, composition
Social science	6	sociology, economics, geography, psychology, political science
Natural science	6	biology, chemistry, physics, general science, geology, astronomy
Additional from one or any combination of the above four areas	9	
Math	3	MATH 101, 105, 154 (with satisfac- tory placement score). May require prerequisite ACFN 070, 080, or 090.
Total required general education	36	

A further requirement is 40 semester hours credit in 300 and senior level courses. Students are permitted to select these courses without restrictions as to field of study. In this way students may plan a program designed to suit their individual needs or ambitions. Appropriate credits, no matter by which means they are awarded, may be applied toward any requirement.

\* A student may not be enrolled simultaneously in the Regents B.A. Degree Program and another baccalaureate degree program.

\*\*Twenty-four semester hours must be earned at institutions under the administration of the West Virginia Board of Directors, with a minimum of three semester hours at the host institution (Shepherd).

\*\*\*Rules relating to Fs: All Fs received four years or more before admission to the Regents B.A. Degree Program are disregarded.

## SAFETY TECHNOLOGY

### Curriculum for a Minor in Safety Technology

Total hours required .....	33
SAFT 113	General Physical Science for Safety Technology ..... 3
SAFT 151	Fundamentals of OSHA ..... 3
SAFT 209	Industrial Hygiene ..... 3
SAFT 220	Safety Management I ..... 3
SAFT 221	Safety Management II ..... 3
SAFT 240	The Industrial Fire Brigade ..... 3
FSCI 115	Life Safety Code ..... 3
FSCI 160	Blueprint Reading and Plans Review ..... 3
FSCI 201	Structural Design and Building Codes ..... 3
FSCI 202	Flammable and Explosive Materials ..... 3
FSCI 212	Toxic, Corrosive, and Radioactive Materials ..... 3

## SOCIAL STUDIES

The social studies program, which offers a comprehensive major, is intended primarily for students preparing to teach in middle or high schools. These curricula provide a multi-disciplinary foundation for prospective teachers who enter integrated social studies educational situations.

### Curriculum for Teaching Field in Social Studies Grades 5-12

Specific general studies requirements .....	15
HIST 101	History of Civilization: Ancient to Medieval OR
HIST 102	History of Civilization: Renaissance to French Revolution OR
HIST 103	History of Civilization: French Revolution to Present ..... 6
PSCI 101	American Federal Government ..... 3
ECON 205	Principles of Macroeconomics ..... 3
SOCI 203	General Sociology ..... 3
Required courses .....	45
HIST 201	History of the United States to 1865 AND
HIST 202	History of the United States 1865 to Present ..... 6
HIST 309	West Virginia and the Appalachian Region ..... 3
HIST 314	Recent United States History OR
HIST 405	Introduction to African-American History ..... 3
HIST 333	Modern European History ..... 3
HIST 337	History of Women in Europe OR
HIST 411	Latin American History OR
HIST 412	History of Russia since 1855 ..... 3
HIST 320	Sub-Saharan Africa OR
HIST 420	Modern East Asia ..... 3
GEOG 101	Principles of World Geography ..... 3
GEOG 301	World Economic Geography ..... 3
GEOG 400	Geography of Latin America OR
GEOG 407	Geography of Asia OR
GEOG 408	Geography of Africa ..... 3

PSCI 102	State and Local Government OR	
PSCI 317	American Political Thought .....	3
ECON 206	Principles of Microeconomics .....	3
PSYC 203	Introduction to Psychology .....	3
SOCI 205	Social Problems .....	3
ANTH 315	Cultural Anthropology OR	
PSYC 305	Social Psychology OR	
SOCI 403	Ethnic Relations .....	3

## Curriculum for Teaching Field in Social Studies Grades 5-9

The 5-9 social studies program, which offers a subject specialization for certification, is intended primarily for students preparing to teach in middle schools.

Specific general studies requirements ..... 15

HIST 101,	History of Civilization: Ancient to Medieval OR	
HIST 102	History of Civilization: Renaissance to French Revolution OR	
HIST 103	History of Civilization: French Revolution to Present .....	6
PSCI 101	American Federal Government .....	3
ECON 123	Contemporary Economics .....	3
SOCI 203	General Sociology .....	3
Required courses .....		24
HIST 201	History of the United States to 1865 .....	3
HIST 202	History of the United States 1865 to Present .....	3
HIST 309	West Virginia and the Appalachian Region .....	3
HIST 314	Recent United States History, 1945 to Present OR	
HIST 405	Introduction to African-American History .....	3
HIST 320	Sub-Saharan Africa OR	
HIST 333	Modern European History OR	
HIST 337	History of Women in Europe OR	
HIST 420	Modern East Asia .....	3
GEOG 101	Principles of World Geography .....	3
GEOG 301	World Economic Geography .....	3
PSCI 102	State and Local Government .....	3

See professional education course listings under Education: Professional Studies Core for Secondary Education (30 hours required) or Professional Studies Core for Middle School Education (29 hours required). Special Methods of Teaching Social Studies is EDUC 422.

Contact Person: Dr. Ellen Sallee, Knutti Hall 109, 304/876-5280 or the Department of Education, Knutti Hall 108, 304/876-5305.

## SOCIAL WORK

Accredited by the Council on Social Work Education, Shepherd College offers a four-year liberal arts curriculum leading to a bachelor of science degree in social work. The curriculum has been designed to provide for a broad educational base in the humanities, the biological sciences, the social and behavioral sciences, creative arts, and communication, together with a sequenced program of social work courses. The primary purpose of the social work program is to prepare generalist beginning-level social work professionals to perform two basic tasks:

1. To help clients deal effectively with existing or potential problems, tasks, or needs that they identify in their interaction with the world around them, and
2. To contribute to the development of the knowledge base, and policies and practices in the agency, local community, and community-at-large which influence the quality of life and services to clients.

The course content also is appropriate to the preparation of students for admission to graduate schools of social work offering advanced professional education.

Preparation for practice includes classroom instruction, audiovisual laboratory experience, field observation, field work experience, community and on-campus workshops, and an intensive program of academic and professional advisement. Social work students are also encouraged to

take advantage of opportunities to further their development as individuals as well as to fulfill their obligations as responsible citizens in a democratic society.

The social work program curriculum is based on a philosophy of social welfare through social change. The curriculum therefore emphasizes generic content areas, principles, and methodologies that will allow for generalist practice with various client and target systems. Students are exposed to a variety of intervention theories and methodologies and are encouraged to select for their practice those interventions which are compatible with the philosophy of social work and which are most useful to the tasks at hand.

In keeping with the mission of the College and the primary purpose of the social work program, the major objectives are:

1. To prepare students for beginning-level generalist social work practice through development of the knowledge, skill, and value base which allows for competent practice.
2. To contribute to the general education of the student by providing a course of instruction based upon the liberal arts tradition.
3. To provide a solid academic and practice foundation for students desiring to pursue advanced professional studies at graduate schools of social work.
4. To encourage students to take advantage of opportunities to further their development as individuals and to fulfill their obligations as responsible citizens in a democratic society.
5. To serve the local professional and lay community by providing continuing education opportunities, and by lending leadership and support to those groups, services, and programs which address human service needs.

## Admission to Social Work Program and Field Experience

Students may declare a major in social work as early as the freshman year. In order to become formally accepted into the program, students must complete SOWK 201 Introduction to Social Work with a grade of C or above and at least 24 hours of general academic requirements with an overall grade point average of 2.0 or above. At that time, a student may complete an application and interview for acceptance into the program.

Upon completion of all general education requirements and the requisite courses for the comprehensive major, a student must apply for an agency-based field experience of 600 hours which is to be completed over two semesters in the senior year.

## Termination

Continuation in the social work major is based upon positive ongoing faculty evaluation of the student's grades, professional attributes, and performance in real or simulated professional situations. A student may be suspended or terminated from the social work major for deficiencies in the above mentioned areas or failure to maintain a 2.0 grade point average in the major.

## Curriculum for a Comprehensive Major in Social Work

Minimum hours required (including free electives) .....	128
General studies requirements .....	47
Specific general studies requirements:	
BIOL 101                      General Biological Science .....	4
BIOL 102                      General Biological Science .....	4
MATH 314                     Statistics .....	3
MATH 314 satisfied the general education requirement. Students must complete one additional elective if they do not take a lower level math course.	
Social work curriculum requirements .....	69
SOWK 201                     Introduction to Social Work .....	3
SOWK 300                     Community Service Learning .....	3
SOWK 301                     Social Welfare as a Social Institution .....	3
SOWK 305                     Human Behavior in the Social Environment I .....	3
SOWK 306                     Human Behavior in the Social Environment II .....	3
SOWK 311                     Social Work Methods I .....	3

SOWK 312	Social Work Methods II .....	3
SOWK 313	Social Work Methods III .....	3
SOWK 404	Social Welfare Seminar .....	3
SOWK 407	Field Experience in Social Work I .....	3
SOWK 408	Field Experience in Social Work II .....	3
SOWK 411	Field Experience in Social Work III .....	3
SOWK 409	Field Experience Seminar .....	2
SOWK 410	Field Experience Seminar .....	1
Related required courses:		
PSYC 203	Introduction to Psychology .....	3
SOCI 410	Social Theory .....	3
PSCI 201	Introduction to Public Administration .....	3
SOCI 205	Social Problems .....	3
SOCI 303	The Family .....	3
SOCI 405	Research Methods .....	3
FACS 304	Child Development OR	
EDUC 300	Human Growth and Development OR	
PSYC 364	Lifespan Development Psychology .....	3
Required electives (9 hours, one from each group):		
<b>Diversity:</b>		
HIST 405	Introduction to African-American History .....	3
SOCI 309	Sociology of Religion .....	3
SOCI 403	Ethnic Relations .....	3
WMST XXX	Any women's studies offering including	
	SOWK 419 Sex and Gender .....	3
<b>Social and economic justice:</b>		
SOCI 402	Criminology .....	3
PSCI 331	Race, Gender, and Politics .....	3
PSCI 411	Politics of Poverty .....	3
SOCI 411	Social Stratification .....	3
<b>Populations at risk:</b>		
SOWK 320	Child Welfare .....	3
HIST 309	West Virginia and the Appalachian Region .....	3
SOCI 312	Introduction to Juvenile Delinquency	
SOWK 402	Social Gerontology .....	3
SOWK 417	Sex and Gender in Contemporary Society .....	3

## SOCIOLOGY

The sociology program, with both a traditional and a criminal justice concentration, offers students a behavioral education which is based in the liberal arts and which is designed to encourage and develop scientific inquiry and an understanding of human behavior, culture, and society. Competencies within the program assist students in recognizing their total college experiences as cumulative, coherent, and unified. The program helps students develop as individuals and as responsible citizens in a democratic society. Students are encouraged and prepared to pursue graduate work in sociology. Aided by a location with superior resources, the program is an integral part of the overall College curriculum and of several specific degree offerings within and outside the Division of Business and Social Sciences. The program does not focus on specific career-related training but provides a solid basis for students to develop skills applicable to a wide range of employment opportunities.

The four-year curriculum leads to the bachelor of science degree in sociology. Candidates for this degree are required to complete a minimum of 128 semester hours.

## Curriculum for a Major in Sociology, Traditional Concentration

Total hours required .....	36
Required courses .....	21
SOCI 205                      Social Problems .....	3
SOCI 303                      The Family .....	3
SOCI 312                      Introduction to Juvenile Delinquency OR	
SOCI 402                      Criminology .....	3
SOCI 403                      Ethnic Relations .....	3
SOCI 405                      Research Methods .....	3
SOCI 410                      Social Theory .....	3
MATH 314                      Statistics .....	3
Elective courses .....	15
Any 300 or 400 level sociology or anthropology course, EDUC 310 Educational Sociology, SOWK 402 Social Gerontology, or SOWK 417 Gender and Sex Roles.	
NOTE: It is assumed that SOCI 203 General Sociology will be taken as a general studies requirement preparatory to pursuance of the sociology major or minor curriculum.	
SOCI 205 Social Problems is a prerequisite for the following courses: SOCI 312, SOCI 402, SOCI 403, SOCI 405, SOCI 410.	

## Curriculum for a Major in Sociology, Criminal Justice Concentration

Total hours required .....	42
Required courses in sociology .....	18
SOCI 205                      Social Problems .....	3
SOCI 303                      The Family .....	3
MATH 314                      Statistics .....	3
SOCI 403                      Ethnic Relations .....	3
SOCI 405                      Research Methods .....	3
SOCI 410                      Social Theory .....	3
Required courses in criminal justice .....	15
SOCI 312                      Introduction to Juvenile Delinquency .....	3
SOCI 320                      The Criminal Justice System .....	3
SOCI 325                      The Correctional Institution .....	3
SOCI 402                      Criminology .....	3
SOCI 419                      Internship in Sociology/Criminal Justice .....	9
Electives in criminal justice and sociology .....	9
Choose any 3 of the following courses:	
CJST 210                      Introduction to Forensic Science .....	3
CJST 220                      Criminal Investigation .....	3
CJST 230                      Principles of Criminal Law and Procedures OR	
SOCI 420                      The Principles of Criminal Law .....	3
CJST 240                      Police Organization and Management OR	
SOCI 425                      Police and Community Relations .....	3
SOCI 390                      Sociology of Violence .....	3
SOCI 411                      Social Stratifications .....	3
SOCI 407                      Collective Behavior .....	3
SOWK 417                      Sex and Gender Roles in Contemporary Society .....	3

All students transferring from or completing a two-year program at Shepherd may use all the sociology and criminal justice courses taken in the two-year program to substitute for required courses and electives in the sociology major with the criminal justice concentration. All courses transferring from other educational systems will have to be examined on a course by course basis.

## Curriculum for a Minor in Sociology

Total hours required .....	24
Required courses .....	15
SOCI 205                      Social Problems .....	3

SOCI 303	The Family .....	3
SOCI 312	Introduction to Juvenile Delinquency OR	
SOCI 402	Criminology .....	3
SOCI 403	Ethnic Relations .....	3
SOCI 410	Social Theory .....	3
Elective courses .....		9
Any 300 or 400 level sociology or anthropology course, EDUC 310, SOWK 402, SOWK 417, or MATH 314.		

## TECHNICAL COMMUNICATION

The English Department's technical communication minor will prepare students to be writers and communications specialists for a wide variety of fields following graduation. In addition to developing professional skills and writing proficiency, this minor ensures expertise in contemporary electronic communication. Since professional technical communicators must possess many skills, this minor is interdisciplinary and is intended to allow students to specialize in a subfield of technical communication once they have completed the four required courses. Students who earn a minor in technical communication will have met the following objectives:

1. Knowledge of the types of electronic communication—especially e-mail and Web pages—used in contemporary technical communication;
2. Skill in conducting research and synthesizing the results of that research into clear, precise reports;
3. The ability to work collaboratively on a project toward a goal;
4. Knowledge gained through extensive research of contemporary issues and problems faced by technical communicators;
5. An understanding of what constitutes ethical behavior in technical communication; and
6. An internship that allows practice in technical communication.

### Curriculum for a Minor in Technical Communication

Total hours required .....	18
Required courses .....	12
ENGL 280	Introduction to Technical Communication .....3
ENGL 380	Advanced Technical Communication .....3
ENGL 382	Technical Editing .....3
ENGL 483	Internship in Technical Communication .....3
Electives from the following.....	6
BSED 329	Office Systems Software .....3
BSED 380	Desktop Publishing .....3
CIS 332	Web Programming I .....3
CIS 334	Web Programming II .....3
COMM 352	Computer-mediated Communication .....3
ENGL 372	Advanced Composition .....3
ENGL 490	Independent Study in English .....3
GRDS 173	Graphic Design I (for non-majors) .....3
JOUR 316	Magazine Writing .....3
Contact person: Dr. Linda Tate, Knutti G-20, 304/876-5365, <ltate@shepherd.edu>.	

## THEATER

The theater program concentrates on providing conservatory classes in a liberal arts atmosphere. The four-year course of study, leading to a minor in theater, is designed for those students who intend to pursue professional theater careers, as well as those who may enter other fields where theater skills are desirable.

The program provides the student with a well-rounded knowledge of the art as well as the opportunity to specialize in acting. The student will learn from intensive classroom study, theory and practical application, and experience in theater productions.

The department annually produces four major productions as well as workshop performances. These productions provide practical experience for theater students and serve as a source of culture and education for the Northern Shenandoah Valley region.

## Curriculum for a Minor in Theater

Total hours required .....	24
THEA 204	Introduction to Theater ..... 3
THEA 205	Theater Technology ..... 3
THEA 203	Acting I ..... 3
THEA 309	Directing I ..... 3
THEA 207	Theater Practice ..... 3
(Electives: 9 hours from one of the following two areas)	
<b>Acting/Directing</b>	
THEA 312	Acting Studio I ..... 3
THEA 314	Acting Studio II ..... 3
THEA 316	Acting Studio III ..... 3
THEA 341	History of the Theater ..... 3
THEA 311	Directing II ..... 3
<b>Design/Technician</b>	
THEA 346	Theater Design ..... 3
THEA 340	Stage Management ..... 3
THEA 310	Production ..... 3
THEA 208	Theater Practice ..... 3
ENGL 421	Shakespeare ..... 3

## WOMEN'S STUDIES

### Curriculum for a Minor in Women's Studies

Total hours required .....	21
Required courses .....	6
WMST 201	Introduction to Women's Studies ..... 3
WMST 421	Women's Studies Capstone/Independent Study ..... 3
Elective courses .....	15
PSYC 320	Human Sexual Behavior ..... 3
HIST 337	History of Women in Europe ..... 3
ENGL 355	American Ethnic Literature ..... 3
ENGL 360	Literature and the Sexes ..... 3
ENGL 366	Women in the Arts and Literature ..... 3
SOWK 417	Sex and Gender in Contemporary Society ..... 3
SOCI 303	Family ..... 3
PSCI 331	Race, Gender, and Politics ..... 3
PSCI 411	Politics of Poverty ..... 3
SOWK 320	Child Welfare Services ..... 3
SOWK 402	Social Gerontology ..... 3
COMM 342	Media Studies ..... 3
COMM 355	Advertising and Imagery ..... 3

For information contact Dr. Betty Ellzey, Department of English and Modern Languages, or Dr. Anders Henriksson, Department of History.

## SECTION VII

COMMUNITY AND  
TECHNICAL COLLEGE

## PROGRAMS OF STUDY

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## COMMUNITY AND TECHNICAL COLLEGE

As an integral part of Shepherd College's comprehensive mission, the Community and Technical College serves the citizens of Berkeley, Grant, Hampshire, Hardy, Jefferson, Morgan, and Pendleton counties, providing post-secondary programs which reflect the region's specific educational, occupational, and cultural needs. The Community and Technical College provides academic/transfer and occupational/technical programs which culminate in associate's degrees. Other programs develop competency in areas fundamental to academic and occupational success, including those designed to improve skills for entry into degree programs. Also included are corollary non-credit continuing education and community service programs. Courses are scheduled at convenient and accessible times and locations throughout the service area. Registration on either a full- or part-time student basis is accepted.

## CAMPUS LOCATIONS

Students can take Community and Technical College classes in Martinsburg at the Blue Ridge Tech Center, in Shepherdstown on the main Shepherd College campus, in Inwood at Musselman High School, in Hedgesville at James Rumsey Technical Institute, in Moorefield at Moorefield High School, in Petersburg at the Shepherd College South Branch campus, or at other work-based locations throughout the area.

## ADMISSION

Anyone who has a high school diploma or a GED is eligible for admission to the Community and Technical College. A student may apply for admission to an associate's degree program or to individual courses not directed toward completion of a degree. Admission to the Community and Technical College does not assure a student of acceptance into a specific degree program. Students admitted without ACT or SAT scores must take the ACCUPLACER placement examination prior to course registration. Admission requirements for degree programs are found in Section II of the *Catalog*.

A student must complete an application for admission, pay the required fee, provide high school or GED transcripts, provide transcripts for other colleges, provide SAT or ACT scores, or take the necessary placement exam. Students who are deficient in specific academic areas may enroll in the Academic Foundations Program.

Students may enroll for courses as special non-degree students. Those who subsequently elect to apply credits earned as special non-degree students to a degree must meet the regular admission requirements.

### Associate's Degree Programs

The academic or transfer curricula are those which constitute the first two years of a specific baccalaureate program and are designed to facilitate the transfer to and completion of the appropriate baccalaureate degree. The Associate of Arts (A.A.) or the Associate of Science (A.S.) degree is awarded for completion of an academic/transfer curriculum.

The occupational/technical curricula are designed primarily as preparation leading directly to employment. However, in some instances, the program also may be transferable to a baccalaureate program. The Associate of Applied Science (A.A.S.) or the Associate of Science (A.S.) degree is awarded for completion of these programs.

### Workforce Development and Continuing Education

In addition to undergraduate credit courses and programs, the Community and Technical College initiates, schedules, and evaluates programs for workforce development and continuing education. In response to a specific educational need or interest, credit and non-credit workforce development and personal enrichment programs are developed and offered throughout the region.

Varied and flexible modes of scheduling and delivery characterize workforce development and continuing education programs. Most non-credit activities are offered as short courses,

workshops, conferences, or institutes. Scheduled at any time during the college year, all workforce development and continuing education programs are supported by participant fees which vary with the program.

Participants who satisfactorily complete a non-credit educational program are awarded either a certificate of completion or continuing education units. A nationally-recognized standard, the continuing education unit (CEU) is defined as "10 contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction." A record of all CEUs earned by an individual is maintained by the College.

The College regularly participates in the Elderhostel Program. Elderhostel is an international educational program for senior citizens.

Inquiries concerning continuing education programs should be directed to the Office of the Community and Technical College, 304/876-5203.

## On-line Classes

Technology allows for some classes to be taught on-line. Class formats vary as follows:

- Web-assisted enables portions of the class and some materials to be available On-line.
- WebCT classes meet exclusively On-line. All class instruction, assignments, and materials are available on a WebCT server. Students are not required to meet in person in a class location. The instructor may require in-class testing.

On-line classes are enumerated in the printed schedule of classes or in the class schedule on the Shepherd College Web page <[www.shepherd.edu](http://www.shepherd.edu)>. The specific format of an On-line class is defined by the instructor and is available during registration.

## High School Programs

The Community and Technical College provides the opportunity for qualified high school students to take college classes at local high schools during the day or evening. High school students earn college credit and pay a special tuition rate.

## Evening Services

To meet the needs of students who are unable to take advantage of course work offered during the daytime, Shepherd College maintains an Office of Evening Services to assist evening students in a number of ways, including academic counseling and course selection. Each semester a variety of courses are scheduled in the evening for students who wish to enroll for personal enrichment or to pursue a degree. For further information contact the Office of Student Academic Support Services.

## Office of Student Academic Support Services

Through the Study Center and the Academic Foundations Program, the Office of Student Academic Support Services assists students in attaining those academic skills essential to college and occupational success. The Study Center provides learning assistance services to students on a one-to-one and small-group basis. Services available through the Study Center include: 1) tutoring in many academic subject areas, 2) study-skills counseling and instruction, 3) workshops in college survival skills, and 4) individualized reading assessment and skill upgrading. The Center, located in Knutti Hall 114, is equipped with instructional resources and a staff ready to help.

The Academic Foundations Program offers course work in essential skills in the areas of mathematics, composition, and college reading and study skills. Instruction in Academic Foundations courses is individually tailored to each student's particular skill profile. Successful completion of the program course work will provide a solid foundation for Shepherd College degree programs. This course work is a particularly appropriate preparation for adult students who are returning to the classroom after time in nonacademic pursuits as well as other students who wish to attend college but whose skills need further development. Prospective students are encouraged to contact the program director for more information.

## South Branch Center

To serve Grant, Hampshire, Hardy, and Pendleton counties more effectively, Shepherd College has established an administrative center for off-campus instruction at Petersburg. The South Branch Center is located at 115 Virginia Ave. Currently, through this center, a student may complete all course requirements at off-campus sites for certain associate's degrees. In addition, courses are scheduled in response to special needs and interests of area residents.

## AUTOMOTIVE TECHNOLOGY

Automotive technology is fully ASE certified and trains the student for an entry-level position in the automotive industry. Students spend 50 percent of their time in supervised shop practice and the other 50 percent in the classroom studying related theory. Certification through ASE is encouraged. The program is a cooperative effort of the Community and Technical College at Shepherd and James Rumsey Technical Institute. Graduates of the program will receive an associate's degree.

### Curriculum for an A.A.S. Degree in Automotive Technology

Total hours required .....	64
James Rumsey courses .....	36
AT 100 Automotive Fundamentals .....	4
AT 101 Brakes .....	4
AT 102 Electrical/Electronic Systems .....	4
AT 103 Engine Performance .....	4
AT 104 Suspension and Steering .....	4
AT 105 Automatics Transmission and Transaxle .....	4
AT 106 Engine Repair .....	4
AT 107 Heating and Air Conditioning .....	4
AT 108 Manual Drive Train and Axles .....	4
On-the-job training .....	9
Community and Technical College courses .....	19
OFTC 105 Fundamentals of Business Communication .....	3
CIS 102 Microcomputer Applications .....	3
CBUS 103 Basic Accounting Fundamentals .....	3
CBUS 150 Introduction to Business .....	3
COMM 202 Fundamentals of Speech .....	3
PSYC 203 Introduction to Psychology OR	
SOCI 203 General Sociology .....	3
CBUS 289 Career Development and Life Planning .....	1

## BUSINESS

The curriculum for the A.A.S. degree in business consists of three components—general studies core, a business core, and an area of concentration.

### Curriculum for an A.A.S. Degree in Business

Total hours required .....	64
General studies courses .....	21
ENGL 101 Written English I .....	3
ENGL 102 Written English II .....	3
COMM 202 Fundamentals of Speech .....	3
ECON 123 Contemporary Economics OR	
ECON 205 Principles of Macroeconomics .....	3
MATH 154 Finite Mathematics OR	
MATH 101 Introduction to Mathematics .....	3
Free electives .....	6
Business core courses required .....	31

ACCT 201	Introductory Accounting I* OR	
CBUS 103	Basic Accounting Fundamentals .....	3
ACCT 202	Introductory Accounting II* OR	
OFTC 205	Computerized Accounting .....	3
CIS 102	Microcomputer Applications OR	
BSED 250	Introduction to Office Technology .....	3
BADM 212	Business Law I .....	3
BADM 310	Principles of Management OR	
FACS 307	Family Consumer Science Management .....	3
BADM 340	Principles of Marketing .....	3
BADM 345	Business Communication OR	
OFTC 105	Fundamentals of Business Communication .....	3
CBUS 289	Career Development and Life Planning .....	1
Electives from ACCT, BADM, BSED, CBUS, CIS, ECON, FACS, IT, OFTC....		9

\* Students pursuing a concentration in accounting MUST take ACCT 201 and 202.

### Accounting Concentration

The accounting concentration is a demanding program designed to prepare students for an entry-level position as an accounting clerk. It is also designed for persons planning to transfer into the bachelor's degree program in accounting at Shepherd College.

Accounting concentration .....	12
ACCT 335      Income Tax .....	3
ACCT 329      Intermediate Accounting I .....	3
ACCT 330      Intermediate Accounting II .....	3
ACCT 332      Intermediate Accounting III OR	
ACCT 292      Accounting Internship .....	3

### Banking Concentration

The banking concentration recognizes courses from the American Institute of Banking (AIB) taught for academic credit

Banking concentration .....	12
Principles of Banking (AIB course) .....	3
AIB Elective .....	3
AIB Elective .....	3
CBUS 292 Business Internship OR	
CBUS 275 Management and Leadership .....	3

### General Business Concentration

Students who complete the general business concentration qualify for entry level positions as clerks, technicians, or assistants to managers. The program is also designed for persons planning to transfer into the baccalaureate program in business administration at Shepherd College. It is flexible in that it permits students to select from a wide range of courses.

General business concentration .....	12
General business courses .....	9
Choose classes in ACCT, BADM, BSED, CBUS, CIS, ECON, FACS, IT, OFTC	
CBUS 292                      Internship in Business OR	
CBUS 275                      Management and Leadership .....	3

### Hospitality and Tourism Concentration

Upon completion of the hospitality and tourism concentration, students will qualify for entry-level jobs and second-level skilled jobs in both the lodging and food service industries.

Hospitality and tourism concentration .....		12
HOST 111	Introduction to Hospitality/Tourism .....	3
CART 203	Lodging Management .....	3
CART xxx	Elective .....	3

CART 292	Hospitality/Tourism Internship OR	
CBUS 275	Management and Leadership .....	3

### Management Concentration

Students who complete the management concentration qualify for entry-level positions in employee relations and behavioral aspects of organizations. The program is also designed for persons planning to transfer into the bachelor's program in business (management concentration) at Shepherd College.

Management concentration .....		12
BADM 323	Human Resource Management .....	3
BADM 390	Human Relations in Industry .....	3
IT 269	Project Management .....	3
CBUS 292	Internship in Business OR	
CBUS 275	Management and Leadership .....	3

### Marketing Concentration

Students who complete the marketing concentration qualify for entry-level positions in retail stores and wholesaling operations. The program is also designed for persons planning to transfer into the bachelor's program in business (marketing concentration) at Shepherd College.

Marketing concentration .....		12
BADM 350	Retailing .....	3
BADM 365	Promotional Strategy .....	3
BADM 395	Consumer Behavior .....	3
CBUS 292	Internship in Business OR	
CBUS 275	Management and Leadership .....	3

## BUSINESS INFORMATION/OFFICE TECHNOLOGY

### Curriculum for an Associate of Applied Science Degree in Business Information/Office Technology

A student pursuing an A.A.S. in business information/office technology must complete the requirements for the general studies core and business core. The student must then complete the requirements for one concentration area.

With the exceptional growth being experienced in the Eastern Panhandle, well-trained administrative support personnel are essential for business and industry. The business information/office technology A.A.S. degree provides students with the training needed for employment upon graduation.

The information technology concentration prepares students for positions as computer operators and specialists with emphasis on courses in computer information systems and various software applications.

The office technology concentration prepares students for careers as secretaries, office managers, and administrative assistants with emphasis on office technology and computer skills.

The computing sciences concentration prepares students for entry-level computer positions. This option also transfers easily to a bachelor degree in computer information sciences.

The medical office concentration provides a comprehensive understanding of the skills necessary for work in physicians' offices, insurance companies, billing companies, hospitals, nursing homes, and other health care facilities. Knowledge of medical billing, collections, and reimbursement guidelines are a must for successful employment in a health care office or facility.

Total hours required .....		64
General education core .....		25
ENGL 101	Written English I .....	3
COMM 202	Fundamentals of Speech .....	3
OFTC 105	Fundamentals of Business Communication .....	3
ECON 123	Contemporary Economics OR	
ECON 205	Principles of Macroeconomics .....	3

MATH 154	Finite Mathematics OR	
MATH 101	Introduction to Mathematics .....	3
PSYC 203	Introduction to Psychology OR	
SOCI 203	General Sociology .....	3
CBUS 289	Career Development and Life Planning .....	1
	Free electives .....	6
Core requirements .....		21
CBUS 103	Basic Accounting Fundamentals OR	
ACCT 201	Introduction to Accounting I .....	3
OFTC 205	Computerized Accounting OR	
ACCT 202	Introduction to Accounting II .....	3
CIS 102	Microcomputer Applications .....	3
BADM 212	Business Law I .....	3
CBUS 150	Introduction to Business .....	3
OFTC 292	Business/Office Technology Internship OR	
IT 292	Information Technology Internship .....	3
CBUS 275	Management and Leadership .....	3
Information technology concentration requirements .....		18
OFTC 150	Troubleshooting .....	3
OFTC 240	Repairing and Maintaining the IBM PC .....	3
OFTC 260	Local Area Networks .....	3
Electives in BSED, CBUS, CIS, OFTC, IT .....		9
Office technology concentration requirements .....		18
BSED 104	Document Processing .....	3
BSED 329	Office Systems Software .....	3
BSED 380	Desktop Publishing .....	3
Electives in BSED, CBUS, CIS, OFTC, IT .....		9
Computing science concentration requirements .....		18
CIS 104	Introduction to Computer and Information Sciences .....	3
CIS 211	Computer Language Concepts .....	4
CIS 312	Adv. Computer Language Concepts OR	
CIS 287	System Analysis and Design .....	3-4
Electives in IT, CIS .....		7-8
Medical office concentration requirements .....		18
BIOL 225	Human Anatomy and Physiology .....	3
BIOL 226	Human Anatomy and Physiology .....	3
BSED 104	Document Processing .....	3
OFTC 103	Medical Terminology .....	3
OFTC 204	Medical Office Technology .....	3
OFTC 285	Medical Billing and Insurance .....	3

## CRIMINAL JUSTICE

The criminal justice program is designed to provide the student with a basic set of skills which will provide for successful employment in the criminal justice and law enforcement fields. The opportunities include employment on police forces, in correctional institutes, and in court systems. As this field has experienced strong growth in the past decade, it is anticipated that the need for skilled workers will only increase.

Law enforcement personnel having attended and graduated for the State Police Academy basic Police Training Course are encouraged to transfer credit from Marshall Community and Technical College to Shepherd Community and Technical College. Additionally, upon presentation of the certificate of completion after having earned 15 credit hours at Shepherd College,

graduates from the academy can receive 3 credit hours on their academic record (without grade) for CJST 253 which counts as the health elective. See the academic advisor for the criminal justice associate's degree for more information.

## Curriculum for an Associate of Applied Science Degree in Criminal Justice

Total hours .....	64
CIS 102	Microcomputer Applications ..... 3
CJST 200	Introduction to Criminal Justice System ..... 3
CJST 210	Introduction to Forensic Science ..... 3
CJST 220	Criminal Investigation ..... 3
CJST 230	Principles of Criminal Law and Procedures ..... 3
CJST 240	Police Organization and Management ..... 3
CJST 260	The Correctional System ..... 3
CBUS 289	Career Development and Life Planning ..... 1
COMM 202	Fundamentals of Speech ..... 3
ENGL 101	Written English I ..... 3
ENGL 102	Written English II OR
OFTC 105	Fundamentals of Business Communication ..... 3
PSYC 203	Introduction to Psychology ..... 3
SOCI 203	General Sociology ..... 3
SOCI 205	Social Problems ..... 3
SOCI 312	Introduction to Juvenile Delinquency OR
SOCI 402	Criminology ..... 3
Health elective, choose one from the following list .....	3
HLTH 103	Personal Health ..... 3
HLTH 225	First Aid/CPR ..... 3
HLTH 300	Substance Use and Abuse ..... 3
EMSP 100	First Responder ..... 3
CJST 253	State Police Academy Basic Training ..... 3
Electives, choose 18 hours from the following .....	18
PSCI 102	State and Local Government OR
PSCI 201	Introduction to Public Administration ..... 3
CBUS 150	Introduction to Business ..... 3
CJST 270	Field Experience in Criminal Justice ..... 1-3
Any other PSYC or SOCI class after meeting prerequisites and receiving approval of advisor. Any PARA or other electives with advisor approval.	

## CULINARY ARTS

The culinary arts program is designed to provide the student with the knowledge and skills necessary to ensure successful employment in the industry. It is encompassing in scope and covers a wide variety of skill and knowledge topics. The topics span the full spectrum of requirements and functions of and within the industry. The student acquires a comprehensive yet basic culinary education which can be successfully applied to all levels of the food service industry. Additionally emphasis is focused upon student development and maintenance of necessary positive attitudes and work habits leading to maximum performance effectiveness upon graduation.

The program is a cooperative effort of the Community and Technical College at Shepherd and James Rumsey Technical Institute. Graduates of the program will receive an associate's degree.

## Curriculum for an Associate of Applied Science Degree in Culinary Arts

Total hours required .....	64
Shepherd College courses .....	48
ENGL 101	Written English I ..... 3
ENGL 102	Written English II OR
OFTC 105	Fundamentals of Business Communication ..... 3

COMM 202	Fundamentals of Speech .....	3
MATH 101	Introduction to Mathematics .....	3
CIS 102	Microcomputer Applications .....	3
HOST 111	Introduction to the Hospitality Industry .....	3
CART 115	Safety and Sanitation in the Food Service Industry .....	3
CART 250*	Externship in Food Service .....	6
FACS 318	Nutrition .....	3
CBUS 150	Introduction to Business .....	3
BADM 340	Marketing .....	3
ACCT 201	Introductory Accounting I OR	
CBUS 103	Basic Accounting Fundamentals .....	3
BIOL 280	Food Microbiology and Food Safety .....	3
CART 200	Culinary Language .....	2
GSPE xx	Physical Education OR	
CBUS 289	Career Development and Life Planning .....	1
	Elective .....	3

\*Three credits taken per semester

Total hours required at James Rumsey for degree ..... 17

JCUL 100	Introduction to Culinary Arts Technology .....	0.5
JCUL 112	Stewarding/Inventory Management Systems .....	3
JCUL 120	Dining Room Practicum .....	1
JCUL 201	Classical Foundations: Stocks and Sauces .....	1
JCUL 206	Meat Identification .....	1
JCUL 208	Entremetier .....	1
JCUL 212	Baking Skills Development I .....	1
JCUL 231	Garde Mange I .....	1
JCUL 236	Garde Mange II .....	2
JCUL 242	Beverage Control Management .....	1
JCUL 250	Menu Design and Analysis .....	1
JCUL 255	Seafood Cookery and Poissonier .....	0.5
JCUL 256	Patisserie .....	1
JCUL 257	Catering Management Concepts .....	1
JCUL 258	Classical Banquet Kitchen .....	1

## ELECTROMECHANICAL TECHNOLOGY

The associate's degree program in electromechanical technology is designed to provide students who desire to enter industry as electrical or electromechanical technicians with the skills and academic foundations that will enable them to find employment and career opportunities in this rapidly growing sector of the industrial community. The program is designed to prepare individuals as industrial electricians, maintenance technicians, or technical support personnel. The program is a cooperative effort of the Community and Technical College at Shepherd and James Rumsey Technical Institute. Graduates of the program will receive an associate's degree.

### Curriculum for an Associate of Science Degree in Electromechanical Technology\*

Total hours required .....	64
Shepherd College courses .....	16
MATH 105, 106	Algebra and Trigonometry ..... 6
GSCI 103	General Physical Science ..... 4
COMM 202	Fundamentals of Speech ..... 3
OFTC 105	Fundamentals of Business Communication ..... 3
James Rumsey courses .....	48
ELM 110, 111	Electrical Techniques/Electrical Theory ..... 12
ELM 112, 113	Electrical Power Theory/Elec. Control Systems ..... 12
ELM 220	Introduction to Electromechanical Technology ..... 12

JELM 225	Advanced Electromechanical Technology .....	12
*To receive this degree, the student must also pass the Journeyman's Examination.		

ELECTRONICS TECHNOLOGY

The electronics technology program is designed to prepare students to become electronics technicians engaged in the design, fabrication, maintenance, testing, troubleshooting, and repair of electronic devices and systems. Students will obtain the mathematical, scientific, and technical expertise necessary to function in a high-technology environment. There are opportunities to specialize in computer, industrial, medical, consumer, or general electronics. The program is a cooperative effort of the Community and Technical College at Shepherd and James Rumsey Technical Institute. A sound foundation in mathematics and physical and applied sciences is offered at Shepherd College. The "hands on" technical courses are taught at James Rumsey. Academic credit will be awarded by Shepherd College for courses taken at James Rumsey. While students are at James Rumsey Technical Institute, they will be enrolled and supervised by that institution and pay its fees.

Graduates of the Associate of Science program in electronics technology will qualify for jobs in a variety of industrial and medical settings. The demand for electronics technicians is great. It is not uncommon for the associate's degree graduate to gain employment and subsequently receive employer support in seeking a baccalaureate degree.

Due to a limited number of student spaces, individuals interested in the program should make application to both institutions early in the year of intended enrollment.

Although no special requirements beyond those required for admission to the College have been defined, it is recommended that the prospective electronics technology student present substantial preparation in mathematics and science.

The program is a cooperative effort of the Community and Technical College at Shepherd and James Rumsey Technical Institute. Graduates of the program will receive an associate's degree.

Curriculum for an Associate of Science Degree in Electronics Technology

Total hours required .....	65
Shepherd course work .....	29
MATH 105            Algebra .....	3
MATH 106            Trigonometry .....	3
GSCI 103            General Physical Science .....	4
COMM 202           Fundamentals of Speech .....	3
OFTC 105           Fundamentals of Business Communication .....	3
Program electives from general studies courses offered in social sciences.....	3
Course work from general studies or the courses listed below .....	10
ENGR 101           Engineering I .....	3
MATH 108           Precalculus .....	3
MATH 154           Finite Math .....	3
CIS 102            Microcomputer Applications .....	3
CIS 104            Introduction to Computer and Information Sciences .....	3
CIS 211            Computer Language Concepts .....	4
James Rumsey course work .....	36
JELC 101           Introduction to Electronics Technology .....	6
JELC 102           Advanced D.C. Electronics Technology .....	6
JELC 103           Advanced A.C. Electronics Technology .....	6
JELC 104           Advanced Digital Electronics Technology .....	6
JELC 201           Foundations of Computer Systems A+ OR	
JELC 202           Foundations of Computer Systems A+/Networking Plus ...	12

# EMERGENCY MEDICAL SERVICES

The Emergency Medical Services Program offers two concentrations under the associate of science degree in emergency medical services. Within the core curriculum for the degree, all students are required to take the EMT-Basic course which meets the U.S. Department of Transportation's National Standard Curriculum for Emergency Medical Technician-Basic (EMT-B). Successful completion of this course qualifies the student to take the National Registry Examination for EMT-Basic.

The clinical concentration within the EMS degree meets the U.S. Department of Transportation's National Standard Curriculum for Emergency Medical Technician-Paramedic (EMT-P) training programs. Successful completion of the program qualifies the graduate to take the National Registry Examination for EMT-Paramedic. It is intended that the clinical concentration of the EMS Program will prepare the graduate for a volunteer or paid career as a certified EMT-Paramedic.

The management concentration within the EMS degree will focus on preparing the graduate to work in a supervisory or management level position with an emergency medical services system.

Admission to the EMS A.S. Program, Clinical Concentration (Paramedic Program)

After admission to the College and prior to enrollment in any of the EMS courses in the Paramedic Program (EMSP 201-210 sequence), the student must complete the following and submit to the EMS coordinator in the Community and Technical College Office:

1. An application to the EMS Paramedic Program;
2. Two letters of reference from a person able to assess the applicant's potential success in the program;
3. A photocopy of current EMT-Basic and CPR (Healthcare Provider Course) certification;
4. A photocopy of student's birth certificate;
5. A photocopy of student's high school diploma or GED certificate;
6. Participate in the Health Occupations Basic Entrance Test (HOBET);
7. Submission to the EMS coordinator of a completed immunization record prior to participation in any EMS Practicum course; and
8. Submission of yearly PPD results (or chest X-ray, if appropriate).

## Curriculum for an Associate of Science Degree in Emergency Medical Services

Total hours required		70
General education core		24
BADM 224	Business Statistics	3
COMM 202	Fundamentals of Speech	3
ENGL 101	Written English I (by placement)	3
MATH 154	Finite Mathematics (by placement)	3
OFTC 105	Fundamentals of Business Communication	3
PSYC 203	Introduction to Psychology	3
SOCI 203	General Sociology	3
	Computer Elective (CIS or OFTC)	3
EMS program core		11
EMSP 101	Introduction to EMS	2
EMSP 102	EMT-Basic	5
EMSP 103	EMS Operations	2
EMSP 211	Field Research and Evaluation	2
Clinical concentration		35
BIOL 225	Human Anatomy and Physiology I	3
BIOL 226	Human Anatomy and Physiology II	3
BIOL 227	Human Anatomy and Physiology Lab I	1
BIOL 228	Human Anatomy and Physiology Lab II	1
EMSP 104	EMS Practicum I	1
EMSP 201	Airway Management/Patient Assessment	2

EMSP 202	Pathophysiology/Shock, Trauma .....	2
EMSP 203	Pre-hospital Pharmacology/Medical Term .....	2
EMSP 204	EMS Practicum II .....	2
EMSP 205	Medical Emergencies I .....	4
EMSP 206	EMS Practicum III .....	2
EMSP 207	Medical Emergencies II .....	4
EMSP 208	Special Patients and Situations .....	2
EMSP 209	EMS Practicum IV .....	2
EMSP 210	Assessment Based Management .....	1
	Elective .....	3
Management concentration .....		35
ACCT 201	Introduction to Accounting I OR	
CBUS 103	Basic Accounting Fundamentals .....	3
BADM 212	Business Law .....	3
CBUS 289	Career Development and Life Planning .....	1
EMSP 110	Fundamentals of EMS Management .....	3
EMSP 111	EMS Management Internship I .....	2
EMSP 212	EMS Budgets and Fiscal Policy .....	3
EMSP 213	EMS Management Internship II .....	2
EMSP 214	EMS Resources Management .....	3
EMSP 215	EMS Management Internship III .....	2
OFTC 205	Computerized Accounting .....	3
PSCI 102	State and Local Government .....	3
PSCI 201	Introduction to Public Administration .....	3
SAFT 251	Fire Department Occupational Safety and Health .....	3
	Elective .....	1

## ENGINEERING

Engineering is the art and science of utilizing the materials and energy sources of nature for the benefit of mankind. The engineer must combine a knowledge of the mathematical and natural sciences with an awareness of the needs of human beings and human society in order to design, construct, and operate the structures, machines, and other devices used in industry and everyday life.

Such critical problems as developing new energy sources, improving the productivity of the manufacturing industry, and developing an affordable means of protecting our environment, are, for the most part, engineering problems. Society's needs in the decades ahead will demand more engineering than ever before.

The engineering program at Shepherd College is a two-year course of study designed to prepare students for transfer into the third year of a baccalaureate degree program in engineering. Shepherd's program emphasizes a strong foundation in mathematical, physical, computer, and engineering sciences, which constitute the core of all areas of engineering. Specialization in a particular engineering field (electrical, mechanical, chemical, civil) will occur upon transfer.

Students who successfully complete this program with a 2.0 average or better will be awarded an Associate of Science degree in engineering, and those who meet the admission requirements outlined below will be assured acceptance into the bachelor of science in engineering programs at West Virginia University and West Virginia Institute of Technology. Those students who exhibit superior performance at Shepherd may expect to be accepted into other engineering schools nationwide. Depending upon the specialty selected, a summer of study at the senior institution may be necessary to complete baccalaureate degree requirements within four years.

**Admission Requirements for the Engineering Transfer Program.** For admission to the engineering program, students must: 1) have completed two units in laboratory science, two units in algebra, one unit in plane geometry, and one unit in trigonometry (or advanced math), and 2) have a minimum ACT math score of 24, or, if a West Virginia resident, have a B high school average and a minimum ACT math score of 21. Students not initially meeting these requirements may be admitted to the program on an individual basis upon satisfactory completion of appropriate college courses.

## Curriculum for an Associate of Science Degree in Engineering

Total hours required for the degree .....	64-66
Required courses in engineering .....	25-27
ENGR 101            Engineering I .....	3
ENGR 102            Engineering II .....	3
ENGR 221 and 222    Introduction to Electrical Engineering and Lab .....	4
ENGR 241            Engineering Statics .....	3
ENGR 242*           Engineering Dynamics .....	3
ENGR 243**          Engineering Mechanics of Materials .....	3
ENGR 224*, 225*    Electrical Circuits and Lab OR .....	
ENGR 354          Introduction to Fluid Mechanics .....	3-4
ENGR 301            Engineering Thermodynamics OR .....	
MATH 310*        Differential Equations .....	3-4
Required math and science courses .....	28
MATH 207            Calculus I .....	4
MATH 208            Calculus II .....	4
MATH 309            Calculus III .....	4
PHYS 221, 221L      General Physics I and Lab .....	4
PHYS 222, 222L      General Physics II and Lab .....	4
CHEM 207, 207L      General Chemistry I and Lab .....	4
CHEM 209, 209L      General Chemistry II and Lab .....	4
Other required courses .....	11
ENGL 101            Written English I .....	3
ENGL 102            Written English II .....	3
GSPE                Physical Education Courses .....	2
Elective .....	3

\*Students intending to major in chemical engineering should substitute CHEM 315 and CHEM 316 for ENGR 242 and ENGR 243.

\*Students intending to major in electrical or computer engineering should substitute ENGR 305 for ENGR 243; ENGR 224 and 225 should be selected, not ENGR 354; MATH 310 should be selected, not ENGR 301.

The following courses are recommended and will transfer as math or science requirements for many engineering areas (check with your engineering advisor): MATH 307, MATH 318, MATH 321, and MATH 409.

## FASHION MERCHANDISING

The fashion industry is dynamic, changing, exciting and demanding. The field of fashion merchandising involves all of the functions of planning, buying, and selling apparel items. Jobs in retail are available in all geographic locations at many levels of employment and degrees of responsibility. On-the-job experience combined with classroom instruction prepares individuals for positions that are challenging as well as financially rewarding. Graduates in fashion merchandising are employed at many levels, from store managers to district managers in small retail stores, chain stores, and in large department stores.

## Curriculum for an Associate of Science Degree in Fashion Merchandising

Total hours required .....	65
ENGL 101            Written English I .....	3
ENGL 102            Written English II .....	3
FACS 101            Textiles .....	3
FACS 102            Clothing .....	4
FACS 215            Fashion Analysis .....	3
FACS 306            Interior Design .....	3
FACS 307            Family and Consumer Science Management .....	3
FACS 315            Cultural Influences on Clothing .....	3

FACS 403	Consumer Economics .....	3
FACS 450	Service Industry Externship (Fashion Merchandising) .....	3
ACCT 201	Introductory Accounting I .....	3
CBUS 150	Introduction to Business .....	3
BADM 340	Marketing .....	3
BADM 345	Business Communications .....	3
BADM 350	Retailing .....	3
BADM 365	Promotional Strategy .....	3
CIS 102	Microcomputer Applications .....	3
ECON 205	Principles of Macroeconomics OR	
ECON 123	Contemporary Economics .....	3
Selection of three hours from the following:		
PSYC 203	Introduction to Psychology .....	3
SOCI 203	General Sociology .....	3
BADM 310	Principles of Management .....	3
BADM 395	Consumer Behavior .....	3
	Electives .....	7

## FIRE SCIENCE

The fire science program is a two-year course of study designed to provide students with the knowledge and skills required to function effectively as entry-level fire and rescue service personnel and to prepare individuals currently employed for advancement within the fire/rescue service profession. Taught by a cadre of practicing fire/rescue professionals, the program provides a unique interactive learning environment where students can obtain classroom education, hands-on training and practical experience through internships.

### Curriculum for an Associate of Science Degree in Fire Science

Total hours required .....		66
Required core .....		33
OFTC 105	Fundamentals of Business Communication .....	3
COMM 202	Fundamentals of Speech .....	3
SOCI 203	General Sociology .....	3
CHEM 101, 101L		
CHEM 102, 102L	Chemistry in Society I and II .....	8
CIS 102	Microcomputer Applications .....	3
PSCI 102	State and Local Government .....	3
SAFT 113	General Physical Science for Safety Technology .....	3
FSCI 292	Internship in Fire Science .....	3
CBUS 289	Career Development and Life Planning .....	1
	Elective .....	3
Fire administration concentration .....		33
EMSP 110	Fundamentals of EMS Management .....	3
FSCI 102	Fire Prevention .....	3
FSCI 110	Introduction to Fire Service I .....	2
FSCI 111	Introduction to Fire Service II .....	4
FSCI 114	Fire Officer I .....	3
FSCI 201	Structural Design and Building Codes .....	3
FSCI 230	Fire Investigation .....	3
FSCI 242	Fire Department Administration .....	3
FSCI 251	Fire Service Occupational Safety and Health .....	3
FSCI 270	Fireground Organization and Command .....	3
SAFT 240	Industrial Fire Brigade .....	3
Fire code enforcement concentration .....		33
CJST 200	Introduction to the Criminal Justice System .....	3
CJST 230	Principles of Criminal Law and Procedures .....	3

FSCI 102	Fire Prevention .....	3
FSCI 110	Introduction to Fire Service I .....	2
FSCI 111	Introduction to Fire Service II .....	4
FSCI 115	Life Safety Code .....	3
FSCI 160	Blueprint Reading and Plans Review .....	3
FSCI 201	Structural Design and Building Codes .....	3
FSCI 202	Flammable and Explosive Materials .....	3
FSCI 204	Fire Inspection/Code Enforcement .....	3
FSCI 212	Toxic, Corrosive, and Radioactive Materials .....	3
Fire investigation concentration .....		33
CJST 200	Introduction to the Criminal Justice System .....	3
CJST 210	Introduction to Forensic Science .....	3
CJST 220	Criminal Investigation .....	3
CJST 230	Principles of Criminal Law and Procedures .....	3
FSCI 110	Introduction to Fire Service I .....	2
FSCI 111	Introduction to Fire Service II .....	4
FSCI 112	Hazardous Materials I and II .....	3
FSCI 113	Hazardous Material III .....	3
FSCI 202	Flammable and Explosive Materials .....	3
FSCI 212	Toxic, Corrosive, and Radioactive Materials .....	3
FSCI 230	Fire Investigation .....	3
Fire operations concentration .....		33
EMSP 102	EMT-Basic .....	5
FSCI 110	Introduction to Fire Service I .....	2
FSCI 111	Introduction to Fire Service II .....	4
FSCI 112	Hazardous Materials I and II .....	3
FSCI 113	Hazardous Material III .....	3
FSCI 190	Fireground Strategy and Tactics .....	3
FSCI 202	Flammable and Explosive Materials .....	3
FSCI 203	Emergency and Rescue Operation .....	3
FSCI 212	Toxic, Corrosive, and Radioactive Materials .....	3
FSCI 251	Fire Service Occupational Safety and Health .....	3
	Elective .....	1
General fire service concentration .....		33
EMSP 102	EMT-Basic .....	5
FSCI 102	Fire Prevention .....	3
FSCI 110	Introduction to Fire Service I .....	2
FSCI 111	Introduction to Fire Service II .....	4
FSCI 112	Hazardous Materials I and II .....	3
FSCI 113	Hazardous Material III .....	3
FSCI 114	Fire Officer I .....	3
FSCI 190	Fireground Strategy and Tactics .....	3
FSCI 230	Fire Investigation .....	3
FSCI 251	Fire Service Occupational Safety and Health .....	3
	Elective .....	1

## GENERAL STUDIES

The Associate of Arts degree in general studies is a terminal degree, but the courses taken are compatible with, and may be applied toward, most four-year degree programs.

### Curriculum for an Associate of Arts Degree in General Studies

Total hours required .....		64
HUMANITIES—19 semester hours		
MUSC 111	Introduction to Music .....	2
ART 103	Introduction to Visual Arts .....	2

ENGL 101, 102	Written English I and II .....	6
ENGL 204	Survey of American Literature .....	3
ENGL 208	Survey of World Literature I OR	
ENGL 209	Survey of World Literature II .....	3
COMM 202	Fundamentals of Speech .....	3

#### LIFE OR PHYSICAL SCIENCES—8 semester hours\*

Students will choose one set of courses listed below:

BIOL 101 and 102	General Biological Sciences .....	8
BIOL 208 and 209	Plants as Organisms and Animals as Organisms .....	8
CHEM 101, 101L		
CHEM 102, 102L	Chemistry in Society I and II .....	8
CHEM 120, 120L		
122, 122L	College Chemistry I and II .....	8
CHEM 207, 207L		
CHEM 209, 209L	General Chemistry I and II .....	8
GSCI 101, 102	Astronomy I and II .....	8
GSCI 103, 104	General Physical Science I and II .....	8
PHYS 201, 201L		
PHYS 202, 202L	College Physics I and II .....	8
PHYS 221, 221L,		
PHYS 222, 222L	General Physics I and II .....	8

#### MATHEMATICS—3 semester hours

MATH 101	Introduction to Mathematics OR	
MATH 108	Precalculus OR	
MATH 154	Finite Mathematics OR	
MATH 204	Calculus with Applications (4) OR	
MATH 314	Statistics .....	3

#### SOCIAL SCIENCES—15 semester hours

ECON 123	Contemporary Economics OR	
ECON 205	Principles of Macroeconomics ** .....	3
HIST 101	History of Civilization: Ancient World through Medieval Period OR	
HIST 102	History of Civilization: Renaissance through French Revolution OR	
HIST 103	History of Civilization: French Revolution to Present .....	6
PSCI 100	Politics and Government OR	
PSCI 101	American Federal Government .....	3
SOCI 203	General Sociology .....	3

#### PHYSICAL EDUCATION—2 semester hours

GSPE	General Studies Physical Education .....	2
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Electives ..... 17

## HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

This program trains students to install, maintain, and repair equipment and accessory units for commercial, residential, and industrial usage. Students study the repair of home appliances, such as ice makers, window air conditioners, freezers, and refrigerators as well as the servicing of commercial air conditioning systems and heat pumps.

The program is a cooperative effort of the Community and Technical College at Shepherd and James Rumsey Technical Institute. Graduates of the program will receive an associate's degree.

## Curriculum for an A.A.S. in Heating, Ventilation, Air Conditioning, and Refrigeration Technology

Total hours required .....	64
James Rumsey courses .....	32
HVAC 101      Theory of Heat .....	4
HVAC 102      Safety, Tools, and Equipment .....	4
HVAC 103      Automatic Controls .....	4
HVAC 104      Electric Motors: Introduction to Refrigeration .....	4
HVAC 105      Commercial Refrigeration .....	4
HVAC 106      Air Conditioning: Heating and Humidification .....	4
HVAC 107      Air Conditioning: Cooling .....	4
HVAC 108      All Weather Systems .....	4
On-the-job training .....	13
Community and Technical College courses .....	19
OFTC 105      Fundamentals of Business Communication .....	3
CIS 102      Microcomputer Applications .....	3
CBUS 103      Basic Accounting Fundamentals .....	3
CBUS 150      Introduction to Business .....	3
COMM 202      Fundamentals of Speech .....	3
PSYC 203      Introduction to Psychology OR	
SOC 103      General Sociology .....	3
CBUS 289      Career Development and Life Planning .....	1
Certifications required for graduation: Industry competency exams (any one of the following three, but Residential Air conditioning is recommended) 1) ARI-ICE: Residential Air Conditioning; 2) ARI-ICE: Light Commercial; or 3) ESCO INST.I-EPA: Universal recommended, Core, 1 and 2 required.	

## HISTORIC PRESERVATION CERTIFICATION PROGRAM

The historic preservation certificate program provides students with an introduction and some practical hands-on skills in the field of historic preservation, an area of expertise which has grown significantly in recent years. The courses in this program are ideal for students with interests or majors in anthropology, art business administration, environmental studies, geography, history, or political science.

### Curriculum for a Certificate of Completion in Historic Preservation

Total hours required for certificate .....	18-19
Required courses .....	12
ANTH 225      Introduction to Museum Studies .....	3
HPRE 101      Historic Preservation .....	3
HPRE 102      American Architectural Heritage .....	3
HPRE 202      Documentation of Historic Properties .....	3
Choose one of the following .....	3-4
ANTH 300      Introduction to Archaeology .....	3
ANTH 345      Archaeological Field Methods and Lab .....	4
ANTH 380      Historical Archaeology and Lab .....	4
Choose one of the following .....	3
ENVS 321      American Decorative Arts .....	3
ENVS 325      Oral History .....	3
HPRE 113      Battlefield Preservation .....	3
HPRE 201      Preservation Technology and Historic Materials .....	3
HPRE 112 Internship in Historic Preservation or ENVS 450 Environmental Internship may be used as a 3-credit elective for this program. Please Note: The requirements for ENVS 450 and HPRE 112 are not the same. Students who are considering continuing on for either a major or minor in environmental studies should take ENVS 450. Please see the program coordinator for environmental studies or historic preservation for details.	

# INFORMATION TECHNOLOGY

## Curriculum for an A.A.S. Degree in Information Technology

Total hours required .....	66-69
General studies core .....	22
OFTC 105	Fundamentals of Business Communication ..... 3
ENGL 101	Written English I ..... 3
COMM 202	Fundamentals of Speech ..... 3
MATH 101	Introduction to Mathematics OR
MATH 105	Algebra OR
MATH 154	Finite Mathematics ..... 3
BIOL 101	General Biological Science OR
BIOL 102	General Biological Science OR
GSCI 101	Astronomy OR
CHEM 101, 101L	Chemistry in Society I and Lab OR
PHYS 201, 201L	College Physics I and Lab ..... 4
PSYC 203	Introduction to Psychology OR
SOCI 203	General Sociology OR
HIST 101	History of Civilization: Ancient World through Medieval Period OR
HIST 102	History of Civilization: Renaissance through French Revolution OR
HIST 103	History of Western Civilization: French Rev. to Present ..... 3
	Elective ..... 3
Technical core .....	20-21
CIS 104	Introduction to Computer and Information Sciences ..... 3
IT 100	Critical Thinking ..... 2
IT 200	Networking Fundamentals ..... 3
IT 269	Project Management ..... 3
A+ certification courses .....	6
IT 180	PC Repair and Troubleshooting ..... 3
IT 181	PC Operating Systems ..... 3
Programming elective .....	3-4
CIS 211	Computer Language Concepts ..... 4
IT 190	Introduction to Programming C++ ..... 3
IT 192	Introduction to Programming Visual Basic ..... 3
On-the-job training .....	3
IT 292	Information Technology Internship ..... 3
Networking concentration .....	21-22
Certification specialty (choose one of two)	
Microsoft Certified Systems Engineer (MSCE) .....	21
Required courses .....	13
IT 210	Windows 2000 Networking and Operating System Essentials ..... 2
IT 215	Supporting Windows 2000 Professional and Server ..... 3
IT 216	Supporting Network Infrastructure Using Windows 2000 ..... 3
IT 217	Implementing and Administering Windows 2000 Directory Services ..... 3
Select one of the following courses .....	2-3
IT 219	Designing a Windows 2000 Directory Services Infrastructure ..... 2
IT 220	Designing Security for a Windows 2000 Network ..... 3
IT 221	Designing a Windows 2000 Networking Services Infrastructure ..... 2

Select two of the following courses .....	4-6
IT 208           Administering SQL Server .....	3
IT 209           Designing and Implementing Databases With SQL Server .....	3
IT 219           Designing a Windows 2000 Directory Services Infrastructure .....	2
IT 220           Designing Security for a Windows 2000 Network .....	3
IT 221           Designing a Windows 2000 Networking Services Infrastructure .....	2
Electives to make 21 hours .....	1-4
Cisco Certified Network Associate .....	22
IT 131           Cisco Networking Fundamentals .....	4
IT 141           Router Theories and Router Technologies .....	4
IT 231           Advanced Router Technologies .....	4
IT 241           Project Based Learning .....	4
IT electives .....	6
Applications programming concentration .....	21-23
Certification speciality (choose one of four) .....	
Microsoft Certified Database Administrator (MCDBA) .....	21
IT 208           Administering SQL Server .....	3
IT 209           Designing and Implementing Databases With SQL Server ...	3
IT 215           Supporting Windows 2000 Professional and Server .....	3
Select one of the following course .....	3
IT 216           Supporting a Network Infrastructure Using Windows 2000 .....	3
IT 252           Distributed Applications With Visual C++ .....	3
IT 254           Distributed Applications With Visual Basic .....	3
IT electives .....	9
Microsoft Certified Solution Developer (MCSD) .....	21
IT 251           Solutions Architecture .....	3
Selection one set .....	6
Set One (Visual C++) .....	
IT 252           Distributed Applications With Visual C++ .....	3
IT 253           Desktop Application With Visual C++ .....	3
Set Two (Visual Basic) .....	
IT 254           Distributed Applications With Visual Basic .....	3
IT 255           Desktop Applications With Visual Basic .....	3
Select one from the following .....	3
IT 209           Designing and Implementing Databases With SQL Server .....	3
T 233           Designing Web Sites With FrontPage .....	3
T 234           Designing and Implementing E-Commerce Solutions With Site Server .....	3
T 235           Designing and Implementing Web Solutions With Visual InterDev .....	3
T 252           Distributed Applications With Visual C++ .....	3
T 253           Desktop Applications With Visual C++ .....	3
T 255           Desktop Applications With Visual Basic .....	3
T electives .....	9
Oracle Certified Professional (OCP) .....	23
T 260           Introduction to Oracle .....	3
T 261           Oracle Forms I .....	3

IT 262	Oracle Reports .....	3
IT 263	Oracle Program Units .....	3
IT 264	Oracle Forms II .....	2
IT electives .....		9
Certified Internet Webmaster (CIW) .....		21
IT 245	I-Net+ .....	3
IT 246	Site Designer .....	3
IT 247	E-Commerce Designer .....	3
IT electives .....		12

## NURSING

The Associate of Science degree in nursing (A.S.) is designed to prepare the graduate to take the National Council Licensure Examination (NCLEX-RN) for registered nurses and to enter a career as a beginning practitioner of nursing. It is intended that the courses in nursing will provide the students with an awareness of the value and dignity of people and a view of the patient as an integrated, unique individual requiring nursing knowledge and skill.

### Mission Statement and Goals

The mission of the Department of Nursing is to enhance the health status of the region by educating nurse generalists through the associate's and bachelor of science degree programs. Emphasis is placed on building a foundation for the pursuit of lifelong learning, personally and professionally, by providing a caring climate and student-faculty relationship that encourage the intellectual, ethical, and personal development of each student.

The goals of the A.S. program are to prepare a graduate who is able to:

1. Use the knowledge, skills, and values of professional nursing in order to influence the health of individuals and families;
2. Practice the discipline of nursing in a caring, empathetic, and culturally-sensitive manner within the scope of the ANA Standards of Practice;
3. Assume the roles of provider and manager of care in recognizing, evaluating, and responding to the health needs of the individual through critical thinking, therapeutic nursing interventions, collaboration, and effective communication;
4. As a member of the discipline, participate in personal and professional lifelong learning, value service to the community, and appreciate cultural diversity.

### Accreditation

West Virginia Board of Examiners for Registered Professional Nurses  
101 Dee Drive  
Charleston, WV 25311  
304/558-3596

National League for Nursing Accrediting Commission  
61 Broadway  
New York, NY 10006  
800/669-1656

### Admission to the A.S. Program

The admissions process requires applying to Shepherd College and making a separate application to the nursing program.

Application to Shepherd College:

1. Submit application for admissions to Office of Admissions;
2. Submit transcripts of high school work showing a grade point average of 2.5 or better, or transcripts showing previous college work with a grade point average of 2.0 or better. If the GED is taken, results must be submitted;
3. Freshman applicants must have an Enhanced ACT of 20 or a Recentered SAT score of 970 (860 on the old SAT).

### Prerequisite Courses

Prior to beginning nursing courses, the student must have completed BIOL 225, BIOL 227, BIOL 226, BIOL 228, and ENGL 101 with a minimum grade of C and maintained a cumulative grade point average of 2.0.

### Application for Admission to A.S. in Nursing Program

By February 1 of the year students desire to enroll in nursing courses, they must complete the following:

1. Submit to Department of Nursing an application for admission to the A.S. in nursing program.
2. Submit a letter of reference from a person able to assess the applicant's potential for success in nursing.
3. Meet with the department chair or designee for advisement. Appointment must be scheduled by the student prior to February 1.

### Drug Calculation

All students entering the A.S. program must take a mandatory drug calculation exam. Students who do not achieve a passing score on the exam must enroll in and successfully complete ACFN 020 Basic Drug Calculations, before enrolling in nursing courses.

### Special Requirements for Nursing Majors

1. Submission of completed health data requirement prior to July 1 following acceptance into the program;
2. Submission of yearly PPD results (or chest x-ray, if appropriate) and evidence of CPR prior to July 1 of each year;
3. Undergo a criminal background check, which is scheduled by the Department of Nursing;
4. Attend yearly JCAHO assembly as scheduled;
5. Adhere to the policies and procedures in the Department of Nursing Education Student Handbook;
6. Complete all course work within five years of admission into the program;
7. Special fee for Nursing Achievement Testing each semester.

### Progression

In order to progress and graduate, the student enrolled in the A.S. program must:

1. Receive a minimum of a C in BIOL 225, BIOL 226, BIOL 227, BIOL 228, ENGL 101;
2. Receive a minimum of C in each nursing course;
3. Maintain a minimum of 2.0 cumulative grade point average;
4. Satisfy pre- and corequisite requirements as scheduled.

### Ratio Clock to Credit Hour

The ratio of theory clock to credit hour is 1:1. A 2:1 ratio of clinical clock hours to credit hours is maintained. A clock hour equals 50 minutes.

### Graduation

Upon successful completion of the program, graduates are eligible to sit for the NCLEX-RN exam.

### Eligibility for Licensure

The nursing law of West Virginia addresses criteria for application for licensure. The West Virginia State Board of Nursing has the power to deny opportunity to procure licenses through testing if the applicant has willfully committed a felony under the laws of West Virginia. Any student entering the nursing program who has committed any illegal offenses (felony or misdemeanor) is encouraged to discuss these matters with the department chair for clarification prior to admission. Details are requested when the graduate makes application for licensure.

### LPN to RN Articulation

The LPN to RN track permits eligible LPNs to accelerate their nursing education in the associate's degree program in nursing.

Eligibility requirements include:

1. Graduation from an NLN-accredited LPN program.
2. Current employment as an LPN.
3. Active LPN license.
4. Application to and acceptance by Shepherd College.
5. Application to and acceptance into the A.S. program.
6. Completion of all Academic Foundation courses.
7. Completion of prerequisites.
8. Completion of first year required non-nursing courses.
9. LPN GAP Challenge Exam (from Educational Resources, Inc.). Offered each fall to eligible students. This exam may be taken only once. Provides opportunity to receive challenge credit for Adult Health Nursing I, Family Health Nursing I, and Family Health Nursing II. Up to 14 credits can be awarded through successful completion of the challenge exam.
10. Entrance Assessment Tests: Drug Calculation Exam and Net.
11. Letter of competence from RN supervisor.
12. Schedule advisement session with nursing advisor before December 1 of year immediately preceding anticipated enrollment in LPN transition course.

Applicants must complete admission procedures as outlined for acceptance into the A.S. program and have an official copy of the LPN transcript on file in the department prior to the December 1 interview date.

### LPN to RN Articulation Course

LPNs who have met eligibility requirements may enroll in the articulation course, NURS 180 LPN to RN Role Transition, which is offered every other summer. Successful completion of the course allows the student to receive credit for NURS 101 and 103. LPNs may choose to enroll as generic students in the A.S. program without participating in the articulation program.

## Curriculum for an Associate of Science Degree in Nursing

Total hours required for the degree .....	72
Total nursing hours .....	41
Related required courses .....	28
Elective .....	3
<b>Prerequisites</b>	
BIOL 225	Human Anatomy and Physiology ..... 3
BIOL 227	Human Anatomy and Physiology Lab ..... 1
BIOL 226	Human Anatomy and Physiology ..... 3
BIOL 228	Human Anatomy and Physiology Lab ..... 1
ENGL 101	Written English I ..... 3
<b>First semester</b>	
NURS 101	Foundations of Nursing ..... 4
NURS 103	Clinical Nursing ..... 4
CHEM 120	College Chemistry ..... 3
CHEM 120L	College Chemistry Lab ..... 1
	Elective ..... 3
<b>Second semester</b>	
NURS 110	Adult Health Nursing I..... 3
NURS 112	Adult Health Nursing Clinical I ..... 3
NURS 114	Family Health Nursing I ..... 2
NURS 116	Family Health Nursing Clinical I..... 2
EDUC 300	Human Growth and Development ..... 3
PSYC 203	Introduction to Psychology..... 3
<b>Summer</b>	
NURS 180*	LPN to RN Role Transition (LPNs only) ..... 5

**Third semester**

NURS 211	Family Health Nursing II .....	2
NURS 213	Family Health Nursing Clinical II .....	2
NURS 201	Mental Health Nursing .....	2
NURS 203	Mental Health Nursing Clinical .....	2
BIOL 302	Microbiology .....	4
SOCI 203	General Sociology .....	3

**Fourth semester**

NURS 202	Adult Health Nursing II .....	3
NURS 204	Adult Health Nursing Clinical II .....	3
NURS 206	Adult Health Nursing III .....	3
NURS 208	Adult Health Nursing Clinical III .....	3
NURS 222	Contemporary Nursing .....	3

\*Course offered only to LPN to RN track students.

## OCCUPATIONAL DEVELOPMENT

### Dependent Care

There is a growing need in the United States for child care and elder care in private homes and at centers. Some employers are making a collaborative effort to provide dependent care for their employees by establishing centers or expanding existing ones. The demand for a dependent care career should increase in the future as the baby boom generation ages and assumes the responsibility of providing care for their elderly parents and as more young mothers pursue employment outside the home.

Job opportunities for this degree include employment in retirement communities, adult day care centers, senior centers, adult congregate living facilities, employer and community child care facilities, and in individual homes.

### Curriculum for an Associate of Applied Science Degree in Dependent Care

Total required for degree .....	64
Required general studies .....	15
ENGL 101                      Written English I .....	3
ENGL 102                      Written English II .....	3
COMM 202                    Fundamentals of Speech .....	3
SOCI 203                      General Sociology .....	3
MATH 101                    Introduction to Mathematics .....	3
Common core to both specialties .....	19
CIS 102                        Microcomputer Applications .....	3
BADM 212                    Business Law I .....	3
HLTH 225*                   First Aid/CPR .....	3
FACS 318                      Nutrition .....	3
FACS 300                      Marriage Relations .....	3
FACS 202                      Food and Meal Management .....	4
Electives .....	6
Child care concentration .....	24
FACS 304                      Child Development .....	3
EDUC 314                    Foundations of Early Education .....	3
EDUC 334                    Instructional Strategies in Early Education .....	3
EDUC 360                    Survey of Exceptional Children .....	3
FACS 310                      Parents and Children through the Lifespan .....	3
FACS 403                      Consumer Economics OR	
FACS 307                   Family and Consumer Sciences Management .....	3

## Supervised work-based learning

FACS 220	Clinical Experience in In-Home Child Care .....	3
EDUC 336	Clinical Experience in Early Education .....	3

\*Proof of First Aid/CPR certification allows a choice of a different course.

Elder care concentration .....	24
HLTH 200	Health and Wellness ..... 3
SOWK 402	Social Gerontology OR
RECR 440	Late Adulthood Issues ..... 3
FACS 225	Geriatric Nursing Assistant ..... 5
RECR 335	Leisure for the Aging ..... 3
FACS 310	Parents and Children through the Lifespan ..... 3
FACS 403	Consumer Economics OR
FACS 307	Family and Consumer Sciences Management ..... 3
Elder care supervised work-based learning	
FACS 230	Field Experience in Nursing Home ..... 2
FACS 235	Field Experience in Geriatric Care ..... 2

NOTE: EDUC 314, EDUC 334, and EDUC 336 are offered on a three-semester rotation.

## Early Childhood Specialist

This program is designed to provide well-trained child care providers and teachers in child care centers. To be eligible, students must complete the Apprenticeship for Child Development Specialist (ACDS) program, a collaborative project sponsored by the United States Department of Labor, West Virginia Bureau of Apprenticeship and Training, the West Virginia Department of Education, River Valley Child Development Services, child care centers, Head Start programs, and county vocational schools in several locations in West Virginia. Child care centers that are interested in enrolling staff members in the apprenticeship program may contact the director at Shepherd College at 304/876-5256.

Apprentices must complete four semesters of course work and related assignments. Instructors in the apprenticeship program must have degrees in child development, early education, or a related field.

## Curriculum for an Associate of Applied Science Degree in Early Childhood Specialization

Total hours required for the degree ..... 67

General studies courses ..... 19

ENGL 101      \*Written English I ..... 3

ENGL 102      Written English II OR

    BADM 345      Business Communications ..... 3

COMM 202      Fundamentals of Speech ..... 3

MATH 101      \*Introduction to Mathematics ..... 3

CHEM 100, 100L      Chemical Science OR

    BIOL 100      Life Science for Elementary Teachers ..... 4

Elective from the following courses, 3 hours: HIST 101, 102, 103; ECON 123, 205; PSCI 100, 101; SOCI 203; CIS 102; EDUC 209.

\* Depending on a student's placement scores, Academic Foundations courses may be needed before these courses.

Early education courses ..... 15

FACS 304      Child Development ..... 3

EDUC 314      Foundations of Early Education ..... 3

EDUC 334      Instructional Strategies in Early Education ..... 3

EDUC 336      Clinical Experiences in Early Education ..... 3

Elective from the following courses, 3 hours:

FACS 310      Parents and Children through the Lifespan ..... 3

FACS 300      Marriage Relations ..... 3

SOCI 303      The Family ..... 3

FACS 307	Family and Consumer Sciences Management .....	3
FACS 318	Nutrition .....	3
Apprenticeship for child development specialist classes .....		33
APTR 101	ACDS: Introductory Child Development .....	5
APTR 102	ACDS: Planning for the Whole Child .....	5
APTR 103	ACDS: Facilitation of Learning .....	5
APTR 104	Becoming Independent .....	5
APTR 105	ACDS: Supervised Work Experience .....	13
Note: ACDS stands for Apprenticeship for Child Development Specialist		
NOTE: EDUC 314, EDUC 334, and EDUC 336 are offered on a three-semester rotation.		

## PARALEGAL STUDIES

The associate's degree in paralegal studies is a program designed to provide students with a balance between theory and practice, enabling graduates to step immediately into opportunities in this growing area of the legal community. The program is designed to prepare individuals for employment at all levels of the law—administration, trial, appellate, and government.

### Curriculum for an Associate of Applied Science Degree in Paralegal Studies

Total hours required .....		65
ACCT 201	Introductory Accounting I OR	
CBUS 103	Basic Accounting Fundamentals .....	3
CIS 102	Microcomputer Applications .....	3
CBUS 289	Career Development and Life Planning .....	1
COMM 202	Fundamentals of Speech .....	3
ECON 123	Contemporary Economics OR	
ECON 205	Principles of Macroeconomics .....	3
ENGL 101	Written English I .....	3
ENGL 102	Written English II OR	
OFTC 105	Fundamentals of Business Communication .....	3
PARA 101	Legal Research and Writing I .....	4
PARA 102	Legal Research and Writing II .....	4
PARA 110	Legal Assisting .....	3
PARA 120	General Law .....	3
PARA 210	Law of Domestic Relations .....	3
PARA 220	Civil Litigation and Procedure .....	4
PARA 250	Criminal Litigation and Procedure .....	4
PARA 260	Business Law and Contracts .....	3
PARA 270	Real Estate Law/Wills and Estates .....	3
SOCI 203	General Sociology OR	
PSYC 203	Introduction to Psychology .....	3
Choose 12 hours from the following courses .....		12
CBUS 150	Introduction to Business .....	3
PSCI 100, 101, 102, or 201 .....		3
Any PARA, CJST, or other electives with advisor approval .....		6

## SAFETY TECHNOLOGY

The safety technology program is a two-year course of study designed to provide students with the knowledge and skills required to function effectively as entry-level safety technicians within a variety of industries and to prepare individuals currently employed for advancement within the safety profession. Taught by a cadre of practicing safety professionals, the program provides a unique interactive learning environment where students can obtain classroom education, hands-on training and practical experience through internships.

## Curriculum for an Associate of Science Degree in Safety Technology

Total hours required for the degree ..... 66

Required core ..... 36

OFTC 105	Fundamentals of Business Communication .....	3
COMM 202	Fundamentals of Speech .....	3
SOCI 203	General Sociology .....	3
CHEM 101, 101L		
CHEM 102, 102L	Chemistry in Society I and II .....	8
CIS 102	Microcomputer Applications .....	3
PSCI 102	State and Local Government .....	3
SAFT 113	General Physical Science for Safety Technology .....	3
SAFT 292	Internship in Safety Technology .....	3
CBUS 289	Career Development and Life Planning .....	1
	Electives .....	6

Concentrations (choose one of three)

Industrial safety concentration ..... 30

SAFT 151	Fundamentals of OSHA .....	3
SAFT 209	Industrial Hygiene .....	3
SAFT 220	Safety Management I .....	3
SAFT 221	Safety Management II .....	3
SAFT 240	Industrial Fire Brigade .....	3
FSCI 102	Introduction to Fire Prevention .....	3
FSCI 160	Blueprint Reading and Plans Review .....	3
FSCI 201	Structural Design and Building Codes .....	3
FSCI 202	Flammable and Explosive Materials .....	3
FSCI 212	Toxic, Corrosive, and Radioactive Materials .....	3

Hospital safety concentration ..... 30

SAFT 151	Fundamentals of OSHA .....	3
SAFT 180	Hospital Security Management .....	3
SAFT 209	Industrial Hygiene .....	3
SAFT 220	Safety Management I .....	3
SAFT 232	Hospital Safety I .....	3
SAFT 233	Hospital Safety II .....	3
SAFT 240	Industrial Fire Brigade .....	3
FSCI 102	Fire Prevention .....	3
FSCI 115	Life Safety Code .....	3
FSCI 160	Blueprint Reading and Plans Review .....	3

General safety concentration ..... 30

SAFT 151	Fundamentals of OSHA .....	3
SAFT 209	Industrial Hygiene .....	3
SAFT 220	Safety Management I .....	3
SAFT 221	Safety Management II .....	3
SAFT 240	Industrial Fire Brigade .....	3
FSCI 115	Life Safety Code .....	3
FSCI 160	Blueprint Reading and Plans Review .....	3
FSCI 201	Structural Design and Building Codes .....	3
FSCI 202	Flammable and Explosive Materials .....	3
FSCI 212	Toxic, Corrosive, and Radioactive Materials .....	3

# VISUAL COMMUNICATIONS

Within the Art Department, the visual communications program works toward developing the student's technical and creative skills. In the first year students are enrolled in a Foundations of Design course that provides a basis for creative development in their work. Each student is also enrolled in the introductory course in their selected areas of interest that provides an overview of the variety of tools available to the student. This comprehensive beginning is then followed by courses that look in depth at selected tools of the designer, photographer, or fine artist. The options range from computer software, advance color or darkroom work to digital printing.

Several courses concentrate on client-base type of projects through which the students learn to combine and improve their various skills and interests while working with a real client.

## Curriculum for an Associate of Arts Degree in Visual Communications

Total semester hours required .....	65
Art core .....	22
ART 140 Foundations of Design I .....	3
ART 170 Foundations of Design II .....	3
ART 203 Survey History of Western Art .....	3
ART 204 Contemporary Art .....	3
ART 208 Portfolio Development .....	1
Core electives. Select 3 courses (9 hours). To be discussed with advisor.	
ART 115 Drawing I .....	3
ART 260 Printmaking I .....	3
PHOT 281 Black and White Photography I .....	3
ART 230 Painting I .....	3
GRDS 171 Graphic Design I .....	3
ART 250 Sculpture I .....	3
General education core .....	25
ENGL 101 Written English I .....	3
ENGL 102 Written English II .....	3
COMM 202 Fundamentals of Speech .....	3
ART 104 Introduction to the Visual Arts .....	3
General Studies .....	13

Choose one option. Take 18 credit hours from one concentration.

Photography concentration .....	18
PHOT 383 Color Photography I .....	3
PHOT 485 Color Photography II .....	3
PHOT 380 History of Photography .....	3
PHOT 281 Black and White Photography I .....	3
PHOT 282 Black and White Photography II .....	3
PHOT 385 Computer Digital Imagery I .....	3
Graphic design concentration .....	18
ART 115 Drawing I .....	3
GRDS 171 Graphic Design I .....	3
GRDS 274 Graphic Design II .....	3
GRDS 276 Introduction to Computer Applications .....	3
GRDS 373 Digital Printing Technologies .....	3
GRDS 374 Typography .....	3
Studio art concentration .....	18
ART 115 Drawing I .....	3
ART 260 Printmaking I .....	3
ART 230 Painting I .....	3
ART 215 Drawing II .....	3
Studio Electives .....	6

## COURSE NUMBERING SYSTEM

The unit of credit is the semester hour. Some courses are not offered every semester.

Courses numbered 001-099 are not for degree credit

Courses numbered 100-199 are normally for freshmen

Courses numbered 200-299 are normally for sophomores

Courses numbered 300-399 are normally for juniors

Courses numbered 400-499 are normally for seniors

## DISCIPLINE NUMBER SYSTEM

Courses in the various disciplines can be identified by the appropriate prefix numbers as listed below:

New Prefix	Old Prefix	New Prefix	Old Prefix
ACFN	Academic Foundations	SOWK	75 Social Work
ACCT	10 Accounting	PHIL	76 Philosophy
BADM	11 Business Administration	ANTH	77 Anthropology
		BIOL	81 Biology
BGMT	11 Business Administration	CHEM	82 Chemistry
ECON	12 Economics	PHYS	83 Physics
BSED	13 Business Education	GSCI	84 General Science
CPIS 14	Computer Programming and Information Systems	MATH	85 Mathematics
EDUC	21 Education	NURS	86 Nursing
PSYC	22 Psychology	SAFT	88 Safety Technology
EDDB	24 Education for the Deaf and Blind	ENGR	89 Engineering
FACS	25 Family and Consumer Sciences	COMP	95 Computer Sci. Theory
APMU	31 Private Applied Music and Ensembles	APTR	Apprenticeship Training
MUSC	32 Music	ARCH	Archaeology
ART	33 Art	ARED	Art Education
GRDS	34 Graphic Design	BHAV	Behavioral Health Technology
PHOT	35 Photography	CART	Culinary Arts
THEA	37 Theater	CIS	Computer and Info Sciences
HLTH	41 Health Education	CJST	Criminal Justice Studies
PHED	43 Physical Education	CMTC	Community and Tech College
ATHC	44 Athletic Coaching	COMP	Computer Science Theory
RECR	45 Recreation	ENVS	Environmental Studies
GSPE	49 General Studies Physical Education	HOST	Hospitality and Tourism
ENGL	60 English	HPRE	Historic Preservation
ENGL	61 Literature	MUAP	Applied Music
JOUR	62 Journalism	MUEN	Music Ensembles
LBSC	63 Library Science	OFTC	Office Technology
FREN	64 French	ORIE	Orientation
GERM	65 German	PARA	Paralegal Studies
RUSS	66 Russian	WMST	Women's Studies
SPAN	67 Spanish	FSCI	Fire Science
RELG	68 Religion	IT	Information Technology
COMM	69 Communications	CBUS	Community and Technical College Business
WASH	70 Washington Semester	EMSP	Emergency Medical Services
HIST	71 History	FSCI	Fire Science
PSCI	72 Political Science	CRIM	Criminal Justice
SOCI	73 Sociology	AT	Automotive Technology
GEOG	74 Geography	PRNT	Print Technology
		HVAC	Heating, Ventilation, Air Conditioning, and Refrigeration Technology

## SECTION VIII

# COURSES OF INSTRUCTION

### ACADEMIC FOUNDATIONS

The credit hours for these courses apply toward hours needed to qualify as a full-time student but do not count toward fulfilling graduation requirements. The grade earned does not count in the grade point average.

#### ACFN 010. INTRODUCTION TO CRITICAL COMPOSITION (3)

Students will be introduced to composition which involves critical analysis of reading material, forming of hypotheses, and construction of intelligent, coherent, full-length essays. Mechanical issues such as grammar, punctuation, and spelling will be addressed primarily on an individual basis as students are encouraged, with assistance, to recognize their own strengths and weaknesses. Several workshop sessions will be held. Grading is pass/fail only.

#### ACFN 020. BASIC DRUG CALCULATIONS (3)

Develops skills to solve typical computational problems encountered in nursing practice. Operations of arithmetic (addition, subtraction, multiplication, and division) including fractions and decimals, ratio, proportion, introduction to algebraic notation, and the metric system. Examines units in the household and apothecary systems; dosage conversion among these systems; intravenous calculations. Optional units include powders and crystals, solutions, and children's dosages. Enrollment as audit is not permitted unless recommended by the appropriate Student Academic Support Services or nursing personnel.

#### ACFN 050. CONSUMER MATHEMATICS (1)

Develops problem-solving skills to deal with consumer topics. Topics include interest and saving account computations, maturity values, commissions, markups, discounts, payroll deductions, tax forms, comparison shopping, credit costs, income and expenditures to budgets, and interpretations of tables and charts. Enrollment other than audit permitted only if advised by the appropriate Student Academic Support Services personnel. Prerequisite or corequisite ACFN 060 or permission of instructor.

#### ACFN 060. BASIC MATHEMATICS (3)

This course examines the operation of arithmetic (addition, subtraction, multiplication, and division) applied to whole numbers, fractions, and decimal numbers. Ratios, proportions, percents, metric system of measurement, and statistics will be studied. The course is an introduction to geometric concepts including basic definitions, properties of circles and triangles, perimeters and areas of polygons, volumes of solids, and the Pythagorean Theorem. Enrollment other than audit is not permitted if the student has successfully completed any other mathematics course, unless recommended by the appropriate Student Academic Support Services personnel.

#### ACFN 070. PRE-ALGEBRA (3)

This is the first part of a two-semester developmental course which builds basic skills in algebra. In the course, which includes real number systems, students will solve equations, solve literal equations for a variable, solve and graph inequalities, solve and graph equations with two variables, and solve word problems using one and two variables. Enrollment other than audit is

not permitted if the student has successfully completed any higher-numbers mathematics course, unless recommended by the appropriate Student Academic Support Services personnel. Prerequisites: ACFN 060 or placement score.

### ACFN 080. BASIC ALGEBRA (3)

This is the second part of a two-semester developmental course to further skills in algebra. Includes manipulation with integral exponents; addition, subtraction, multiplication, and division of polynomials and rational expressions; quadratic equations; addition, subtraction, multiplication, and simplification of radical expressions; and scientific notation. Enrollment other than audit is not permitted if the student has successfully completed any higher-numbered mathematics course, unless recommended by the appropriate Student Academic Support Services personnel. Prerequisites: ACFN 060 or ACFN 070 or placement score.

### ACFN 089. JTPA ORIENTATION (1)

This course is required for all Job Training Partnership Act (JTPA) students who are in the electronics technology program. Students will provide the JTPA office with necessary documentation of class participation, attend JTPA workshops and seminars throughout the semester, and maintain JTPA eligibility as required by the Bureau of Employment Programs and the Shepherd College JTPA Office. Grading is pass/fail only. Prerequisite: Permission of the JTPA Office.

### ACFN 090. INTERMEDIATE ALGEBRA (3)

A developmental course to build skills in basic techniques of algebra. Includes introduction to the rational and real number systems; evaluating algebraic expressions for given numerical values; solving and graphing solutions of equations in one and two variables; adding, subtracting, multiplying, and dividing polynomials and rational functions; solving quadratic equations; manipulations with integral exponents. These techniques will be used to solve practical problems. Enrollment other than audit is not permitted if the student has successfully completed any higher-numbered mathematics course, unless recommended by the appropriate Student Academic Support Services personnel. Prerequisite: ACFN 060 or satisfactory placement score.

### ACFN 095. DEVELOPING COLLEGE READING AND STUDY SKILLS (3)

The course will provide opportunity to develop an improve basic reading necessary to do college-level work. Emphasis will be on vocabulary development, comprehension, interpretation, and evaluation.

### ACFN 096. COLLEGE STUDY SKILLS (2)

The course will provide a systematic exposure to successful study skills for college, such as organizational skills, note-taking skills, test-taking skills, and library skills. The course will expose students to those Shepherd College services and resources which will assist the individual student in achieving academic goals.

## ACCOUNTING

### ACCT 201. INTRODUCTORY ACCOUNTING I (3)

Fundamentals of accounting including basic accounting models, inventory methods, classified statements, negotiable instruments, internal control, accounting for property and equipment, and special journals in conjunction with sole proprietorships.

### ACCT 202. INTRODUCTORY ACCOUNTING II (3)

Study of the basic structure of partnerships and corporations, manufacturing accounting, analysis of financial statements, and an introduction to cost accounting. Prerequisite: ACCT 201.

### ACCT 292. INTERNSHIP IN ACCOUNTING (1-3)

A form of independent study which integrates classroom study with supervised work experience. The primary focus is upon the experience and skills learned. Internships generally last no longer than a semester. Interns are not employees of the sponsoring company. Prerequisite: ACCT 202.

**ACCT 305. MANAGERIAL ACCOUNTING (3)**

Techniques of interpreting accounting, financial, and statistical data for use in management decision-making. Topics include financial reporting for internal and external use; measurement and interpretation of cost data; capital budgeting; budgets as a means of management control; and financial statement analysis. Prerequisite: ACCT 202.

**ACCT 329. INTERMEDIATE ACCOUNTING I (3)**

An in-depth study of the principles, concepts and theory underlying published financial statements. Emphasis is placed upon the components of these statements and the limitations involved in their preparation. Prerequisite: ACCT 202.

**ACCT 330. INTERMEDIATE ACCOUNTING II (3)**

A continued in-depth study of published financial statements. Emphasis is placed upon principles and pronouncements established by authoritative bodies as it applies to equity accounts, tax allocation, inflation accounting, accounting changes, and correction of errors. Prerequisite: ACCT 329.

**ACCT 331. INTERMEDIATE ACCOUNTING III (3)**

A continued in-depth study of financial reporting issues including, but not limited to, long-term requirements in accounting for pensions and leases, cash flows, financial statement analysis, reporting changes and inflation effects. Prerequisite: ACCT 330.

**ACCT 335. INCOME TAX (3)**

A study of the Internal Revenue Code and regulations relating to individuals, partnerships, and corporations. Prerequisite: ACCT 202.

**ACCT 336. COST ACCOUNTING (3)**

The economic, industrial engineering, and managerial aspects of cost accounting including process, job order, and standard cost systems. Prerequisites: ACCT 202 and BADM 224.

**ACCT 337. VOLUNTEER INCOME TAX ASSISTANCE (1)**

Students prepare state and federal income tax returns on a volunteer basis. This is a program (VITA) sponsored through the Internal Revenue Service. Returns are prepared for the elderly and those individuals who cannot afford to go to a paid tax preparer.

**ACCT 392. COOPERATIVE EDUCATION IN ACCOUNTING (1-6)**

A form of independent study which integrates classroom study with paid, planned, and supervised work experience in the public and private sectors. Students are exposed to the reality of the work world beyond the boundaries of the campus, enhancing their self-confidence and career direction. Co-op students are employees of the sponsoring company and earn a salary and college credit. Generally, sponsoring employers seek upperclassmen with knowledge and background in the discipline. Maximum of three credit hours may be used as accounting elective credit by majors only. Prerequisite: ACCT 329.

**ACCT 401. COMPUTER-BASED ACCOUNTING (3)**

This course employs general purpose accounting software and requires the student to design, implement, and utilize an accounting system. Prerequisite: ACCT 331, 335.

**ACCT 402. AUDITING (3)**

Concepts, objectives, standards, procedures, and techniques relating to the performance of the audit. Emphasis on decisions which involve judgment that are important to final reporting. Prerequisite: ACCT 331.

**ACCT 403. FUND ACCOUNTING (3)**

Application of accounting principles to various funds of governmental and institutional units.

Special emphasis placed upon budgetary accounting and its potential usefulness in planning and controlling revenues and expenditures. Prerequisite: ACCT 329.

**ACCT 406. ADVANCED ACCOUNTING (3)**

Current theories and procedures relating to partnerships and consolidated statements. Prerequisite: ACCT 331.

**ACCT 408. AUDITING II (3)**

This course is designed to address advanced technical concepts and current topical issues of auditing. It will also build upon concepts learned in Auditing I utilizing in-depth case studies and applications. Prerequisite: ACCT 402.

**ACCT 410. ACCOUNTING THEORY (3)**

Contemporary financial accounting issues as reflected in pronouncements of leading professional research and policy organizations such as the Financial Accounting Standards Board and the American Institute of Certified Public Accountants. A frame of reference for assimilating and evaluating the historical foundation of the basic accounting theories and concepts as they appear in the current accounting standards. Prerequisite: ACCT 331.

**ACCT 435. INCOME TAX II (3)**

An in-depth study of the Internal Revenue Code as it relates to C-corporations, S-corporations, partnerships, estates and trusts. Prerequisite: ACCT 335.

## **ANTHROPOLOGY**

**ANTH 225. INTRODUCTION TO MUSEUM STUDIES (3)**

Survey of the history, philosophy, and management of museums including curatorship and public interpretation. Basic examination of the principles of museum exhibit design as well as aspects of exhibit preparation will be emphasized. This course will be essential to students interested in cultural resources in such agencies as the National Park Service.

**ANTH 300. INTRODUCTION TO ARCHAEOLOGY (3)**

Course surveys the history, theory, and methodology of archaeology as a subdiscipline of anthropology. Field skills necessary; the scientific collection of data on past cultures will be discussed as well as topics in prehistoric, historic, industrial, and underwater subareas.

**ANTH 314. GENERAL ANTHROPOLOGY (3)**

A general survey of the origins of humans and the development of prehistoric cultures.

**ANTH 315. CULTURAL ANTHROPOLOGY (3)**

A study of primitive cultures with respect to range and variability of human behavior. Presented to show the continuity of social life from basic human beginnings to present-day civilization.

**ANTH 345. ARCHAEOLOGICAL FIELD METHODS AND LAB (4)**

A study of theories, methods, and techniques of archaeology as applied to analysis of environmental impacts on historic and prehistoric sites. This includes the use of social scientific techniques for mitigating the impacts of planned changes to the physical or cultural environment such as site survey, excavation techniques, laboratory techniques, and artifact analysis. This course will provide valuable knowledge on the techniques of data collection used in the study of cultural groups, with these techniques applied to environmental impact statements, urban planning, and resource management. This is predominantly a field-based and laboratory-based course.

**ANTH 370 AMERICAN ARCHITECTURAL HERITAGE (3)**

The role of American architecture as a cultural resource worthy of study and preservation is the focus of this course. Styles and periods of architecture, the consideration of architectural resources in planning and environmental education, and the reflection of American culture in the

built environment will be discussed. This course will serve as an elective in cultural resource management and will be essential for students with an interest in urban planning or park administration.

#### ANTH 380 HISTORICAL ARCHAEOLOGY AND LAB ( 4)

This course will focus on the archaeology of North America, emphasizing the methods of historical archaeology. This course will include laboratory procedures for the processing, identification, analysis, and conservation of historic period artifacts. The evolution of American culture from colonial to recent industrial society will be investigated. This course is essential for students interested in the management of historical parks and sites as well as students who plan to assist in field work and analysis necessary for environmental impact statements.

#### ANTH 390. NATIVE AMERICAN ETHNOGRAPHY (3)

A survey of traditional Native American cultures in North America. This course will cover aspects of Upper Paleolithic migrations into the New World, prehistoric developments, and the ethnography and ethnology of traditional and contemporary cultures. Prerequisite: SOCI 203.

### APPRENTICESHIP

#### APTR 101. ACDS: INTRODUCTORY CHILD DEVELOPMENT I (5)

This basic course is an overview of the "pieces" of development in young children, including emotional, social, mental, and physical development. The focus is on the relationship between stages of growth in separate areas of development and the activities which promote development.

#### APTR 102. ACDS: PLANNING FOR THE WHOLE CHILD (5)

This course is a continuation of the study of child development, but in contrast to the first semester, will look at the child as a whole. The focus will be on the integration within the child of the different areas of development. Typical behavior exhibited as a child progresses through stages and the unique characteristics of individual children will be analyzed. Planning appropriate curriculum according to developmental level will be emphasized. Health and safety issues that arise when children reach new levels of ability will be explored.

#### APTR 103. ACDS: FACILITATION OF LEARNING (5)

This course emphasizes the role of the teacher in fostering optimum development through a.) positive interactions with children, b.) effective individual and group management techniques, c.) appropriate classroom design, and d.) curriculum planning. An understanding of discipline as the development of self control will be emphasized.

#### APTR 104. ACDS: BECOMING INDEPENDENT (5)

This course will assist the apprentice in managing and administering a quality environment for young children. Problem solving about concerns that arise in daily operation will be practiced.

#### APTR 105. APPRENTICESHIP IN CHILD DEVELOPMENT I (13)

This course provides the apprentice with 4,000 hours of supervised on-the-job training in participating child care programs. Formal instruction is integrated with direct experience in early education settings where apprentices reflect and critically analyze their experiences. A portfolio is used to document the apprentice's learning/work throughout the apprenticeship program.

### ART

Also see Graphic Design and Photography/Computer Imagery)

#### ART 103. INTRODUCTION TO THE VISUAL ARTS (2)

An introductory course, required of all students, designed to give insight into the nature of the visual arts and their relationship to contemporary life. Includes a study of the language and functions of painting, sculpture, and architecture. The development of styles, aesthetic principles, and the ideas of art are surveyed.

### ART 104. INTRODUCTION TO THE VISUAL ARTS (3)

An introductory course for all art majors and art minors designed to give insight into the nature and vocabulary of the visual arts and their relationship to contemporary life. Includes a study of the visual and verbal language of the artist. The processes of painting, printmaking, photography, sculpture, and architecture; the development of styles, aesthetic principles, and the ideas of art are surveyed.

### ART 115. DRAWING I (3)

An introductory course for development of basic drawing skills and practice in the use of various drawing materials. Observation, memory training, and composition are stressed to give the student a wide experience and solid base in the art of drawing.

### ART 140. FOUNDATIONS OF DESIGN I (3)

An introductory course which examines the concepts and nature of visual image making. The fundamental skills and knowledge of two- and three-dimensional design as related to the visual arts are explored.

### ART 170. FOUNDATIONS OF DESIGN II (3)

A continuation of ART 140 with a more extensive examination of the concepts and nature of visual image making. The fundamental skills and knowledge of two- and three-dimensional design as related to the visual arts are explored in further depth. Prerequisite: ART 140.

### ART 203. SURVEY HISTORY OF WESTERN ART (3)

A historical survey of the major developments in architecture, sculpture, and painting of the Western world from prehistoric times to the Impressionists. Prerequisite: ART 103 or ART 104.

### ART 204. CONTEMPORARY ART (3)

An in-depth investigation of the visual arts of the 19th and 20th centuries. A study is made of the history and philosophy of the various movements, their origins and growth, and the relationship of their development to contemporary culture and thought. Prerequisite: ART 203.

### ART 208. PORTFOLIO DEVELOPMENT (1)

An entry level prerequisite or corequisite course to enrolling in upper division bachelor of fine arts courses. This course establishes a standard for successfully approaching visual image making in graphic design, painting, printmaking, or photography. Prerequisite: Three semesters of successful work in a major concentration area.

### ART 215. DRAWING II (3)

A continuation of the basic drawing and perceptual skills developed in Drawing I. Prerequisite: ART 115.

### ART 230. PAINTING I (3)

An introduction to the materials, philosophies, techniques, and processes of the painter. Painting is approached as a creative experience through the study of subject matter, form, and content. Prerequisite: ART 140; corequisite: ART 170.

### ART 250. SCULPTURE I (3)

An introduction to the materials philosophies, techniques and processes of the sculptor. Sculpture is approached as a creative experience involving traditional methods and concepts as well as those of the contemporary sculptor. Prerequisite: ART 140.

### ART 260. PRINTMAKING I (3)

Students are introduced to relief processes, intaglio processes, and monoprint or monotype processes of printmaking. Half of the semester is devoted to developing skills and vocabulary of relief processes; the other half of the course is devoted to monoprint techniques and intaglio. Wit

Each process the student explores the use of value, line texture, and color to create visual images utilizing innovative as well as traditional printmaking techniques in relief and intaglio.

#### ART 304. SPECIAL TOPICS IN ART HISTORY (3-9)

This course will vary in content with each offering as areas of particular interest or timeliness not covered by the regular curriculum are explored. Offerings may focus on a specific art movement, time period, geographical location, an individual artist, or a particular topic. Each course offering under this title bears a subtitle which indicates the specific subject to be covered. This course may be repeated for credit when course content is changed. Prerequisite: ART 203, ART 303.

#### ART 330. PAINTING II (3)

A continuation of the skills and techniques developed in ART 230. Compositional experimentation, creative and expressive modes, and evaluation skills are emphasized. Prerequisites: ART 230, ART 208.

#### ART 350. SCULPTURE II (3)

A continuation of the skills and techniques developed in ART 250 with additional emphasis placed on selected concepts and processes. Prerequisites: ART 250, ART 208.

#### ART 361. PRINTMAKING II (3)

Students are introduced to lithography processes, intaglio processes, and monoprint or monotype processes of printmaking. Half of the semester is devoted to developing skills and vocabulary of the lithographic process; the other half of the course is devoted to monoprint techniques and intaglio. With each process the student explores the use of value, line texture, and color to create visual images utilizing innovative as well as traditional printmaking techniques in lithography and intaglio.

#### ART 372. COMPUTER APPLICATIONS (3)

Introduction to understanding and usage of a computer as a major tool in the development of visual information for the studio artist. The Macintosh computer will be used focusing on general system operations/utilities as well as illustration and paint software programs. Emphasis is placed on developing an understanding of the selected software programs enabling the student to work productively with them. Prerequisite: ART 170.

#### ART 375. RESEARCH STUDIO (3-6)

This course allows upper level students to pursue a studio experience during summer school. Approval must be granted by the coordinator of the program in which the student desires to work, and a written plan for summer study must be submitted to both the program coordinator and the faculty member supervising and directed the Research Studio course for the summer. It is expected that the plan involve advanced and challenging ideas reflecting a maturity necessary for some independent pursuit. Prerequisite: 18 hours of art including a minimum of 12 hours in the program area in which the student desires to work.

#### ART 391. INTERNSHIP (3-9)

Individually designed experimental learning. May include field studio or internship placements such as graphic design, museum or gallery work, or work in a professional artist's studio. Lectures and discussions are utilized to prepare students for intern placement through résumés, interviews, job applications, and professional practices in the work place. Prerequisite: Must have completed 60 hours of art in area of concentration.

#### ART 392. COOPERATIVE EDUCATION IN ART (1-6)

Intended to provide a bridge between the classroom and the professional world, cooperative education provides supervised work experience directly related to a student's major subject area and career goals. Placement will be in a gallery, museum, or studio. May be repeated for credit, but not in the same term. Usually offered every term. Prerequisite: Junior level standing with

minimum overall GPA of 2.3, 2.7 in the concentration area, approval of academic department and placement by the Career Development Center. It is recommended that the student complete an internship or practicum prior to entering a cooperative education placement.

#### **ART 400. SPECIAL TOPICS IN STUDIO ART (3-9)**

This course will vary in content with each offering as areas of particular interest or timeliness not covered by the regular curriculum are explored. Offerings may focus on a specific art process or style or on a specific area of content. Each course offering under this title bears a subtitle which indicates the specific subject covered. This course may be repeated for credit when course content is changed. Prerequisite: Permission of instructor and 18 hours of studio art.

#### **ART 403. ART CRITICISM (3)**

An investigation of the aesthetic dimension of the visual arts is made in relation to the student's experience and the history of art, preparing the student to analyze, evaluate, and judge a work of art. Prerequisites: 22 hours of art, ART 203, ART 204.

#### **ART 410. ADVANCED DRAWING (3-6)**

This class, designed for upper level drawing students, will focus on the developmental continuation of skills and perceptions of drawing. The course will focus on the figure and other three-dimensional subject matter as well as explore media and the perceptions of drawing as a fine art medium. Prerequisites: ART 115, ART 215.

#### **ART 434. ADVANCED PAINTING STUDIO (3-9)**

An upper-division course designed as a culminating experience within the concentration area of painting. An opportunity is provided for the student to pursue a specific area of painting. Prerequisite: ART 330.

#### **ART 450. ADVANCED SCULPTURE STUDIO (3-9)**

An upper division course designed as a culminating experience within the concentration area of painting. An opportunity is provided for the student to pursue a specific area of painting. Prerequisite: ART 350.

#### **ART 464. ADVANCED PRINTMAKING STUDIO (3-9)**

An upper-division course designed as a culminating experience within the concentration area of printmaking. The student is expected to experimentally pursue an aspect of the printmaking area on a significant level. Prerequisite: ART 361.

#### **ART 475. INTERDISCIPLINARY STUDIO (3-9)**

This studio course explores the nature and process of contemporary art. Students are encouraged to investigate mixed media. Integration of processes is promoted. Students interested in photography, graphic design, painting, printmaking, sculpture, installation, performance, and conceptual art work together solving creative problems with a team of faculty whose expertise is broad and varied. Faculty mentors encourage boundaries to be broken, limits to be pushed, and students to explore both conceptually and technically the range of artistic opportunity. Prerequisite: 18 credit hours in art, 6 hours in an area of concentration in art, ART 230 and 330 or ART 250 and 350 or ART 260 and 361 or PHOT 281 and 282 or GRDS 171 and 371.

#### **ART 480. INDIVIDUALIZED STUDY (3-9)**

This course allows selected senior level students to pursue a self-directed and self-motivated experience in any studio area in which the student has completed a minimum of 30 credit hours. Approval must be granted by the program coordinator in which the student desires to work and a written plan for the individualized study must be approved. It is expected that the plan involve advanced and challenging ideas reflecting a maturity necessary for individualized study. Prerequisites: Completion of 30 hours within the studio area and approval by the program coordinator.

**ART 490. SENIOR REVIEW (2)**

An exit review by the art faculty of the student's work to date concentrating on the major area and the academic record in terms of quality and accomplishment. Prerequisite: Senior standing.

**ART EDUCATION****ARED 180. INCLUSIVE APPROACHES TO ART EDUCATION (3)**

ARED 180 provides students with an overview of practices used in teaching visual art to exceptional children. The course will examine current legislative policies and ethical issues associated with teaching special needs and special abilities students through art. In addition, this course will model teaching and classroom management strategies useful for teaching art through multicultural perspectives and to special populations.

**ARED 325. AESTHETIC INQUIRY (3)**

The purpose of this course is to acquaint education majors with the broad range of themes and issues considered in the visual arts and in effective teaching of art in K-12 grades. Students will study the philosophy of art and the history of aesthetic arguments concerning the nature, definition, purpose, and value of art. Course content will present a variety of pedagogical strategies including, among others, methods to teach studio art, art history, art criticism, aesthetics, psychology, the interdisciplinary approach, the multicultural approach, and technology. Moreover, students will explore historic and recent trends in curriculum development, and regional and national instructional standards. Students will employ critical reading, writing and discussion skills. Prerequisite: ART 103.

**ARED 345. VISUAL THINKING SKILLS (3)**

A comprehensive study of the psychology of art intended for art education majors. This course surveys methods of critical, analytical, and evaluative thinking associated with creative problem solving. Visual communication principles, social issues, group dynamics, and research methods are stressed. Prerequisites: ART 104, ART 140, and ARED 180.

**ARED 365. ART EDUCATION INQUIRY (3)**

This course will use the model of a teacher-researcher to investigate contemporary issues in art education. Students will create and conduct an original project in the form of a library-based research paper, a case study observation, and /or an experimental investigation. Following the completion of the research, students will provide written documentation and will present their research outcomes. Prerequisite: ARED 245.

**ATHLETIC COACHING****ATHC 193. VARSITY ATHLETICS (1)**

For intercollegiate athletic team members. Athletes receive instruction in skills, techniques, and rules in an intercollegiate sport and must participate in practice sessions and athletic events. Can be taken one time only during athletic participation for one credit. Permission of the coach/instructor.

**ATHC 324. CARE AND PREVENTION OF ATHLETIC INJURIES (3)**

A theory and laboratory course that studies prevention, care, and taping of athletic injuries with emphasis on safety in sports activities and prevention of injuries through conditioning programs.

**ATHC 350. COACHING OF FOOTBALL (3)**

For individuals who anticipate active involvement in coaching football. Emphasis is on scheme, strategy, fundamentals, position techniques, and team theory as well as an in-depth study of offense, defense, kicking game, scouting, and evaluation of personnel.

**ATHC 351. COACHING OF BASKETBALL (3)**

For individuals who anticipate active involvement in coaching basketball. Emphasis is on coaching philosophy, problems, individual and team offense and defense, drills, professional attitude, and advancement.

### ATHC 352. COACHING OF BASEBALL (3)

For individuals who anticipate active involvement in coaching baseball. Emphasis is on developing a thorough knowledge of the sport and an understanding of the rules, skills, offense and defensive strategies, and coaching techniques of the game.

### ATHC 353. COACHING OF TENNIS (3)

For individuals who anticipate active involvement in coaching tennis. A study of the physical and emotional areas of human development critical to growth as a tennis player. Emphasis is on teaching methods, philosophy, skills, strokes, tactics, drills, etiquette, and equipment.

### ATHC 403. PRINCIPLES OF COACHING (3)

This course examines functions, roles and responsibilities associated with coaching from elementary through college level. Career advancement, coaching philosophy, coaching assistant, and the interview process are also studied.

### ATHC 405. PSYCHOLOGY OF COACHING (3)

For students who anticipate active involvement in coaching. Emphasis is on psychological demands in athletics with special attention to personality, activation motivation, aggression, anxiety, audience, social and group interaction.

### ATHC 450. COACHING INTERNSHIP (3)

Provides practical coaching experience under a qualified head coach for an entire season. Students must serve as an assistant coach in a public junior or senior high school or collegiate athletic program (minimum of 150 hours). Specific procedures are outlined in Coaching Internship Manual. May be repeated.

## BIOLOGY

### BIOL 100. LIFE SCIENCE FOR ELEMENTARY TEACHERS (4)

Open only to students pursuing curricula in elementary and early education. Develops skills of observation and manipulation in laboratory and out-of-door settings. Stresses application of scientific method as applied to living things. Basic concepts of biology introduced as a vehicle for these objectives. Consideration of methods and subject matter appropriate to K-8 grade level.

### BIOL 101. GENERAL BIOLOGICAL SCIENCE (4)

Not for biology majors. With BIOL 102, satisfies general education science requirement. Integrated approach to the biology of plants, animals, and microorganisms. Half of the course centered around environmental principles, and the other half is centered around organismic homeostatic (regulatory) principles. Laboratory topics and sequence integrated with lecture.

### BIOL 102. GENERAL BIOLOGICAL SCIENCE (4)

Not for biology majors. With BIOL 101, satisfies general education science requirement. Integrated approach to the biology of plants, animals, and microorganisms. Half of the course centered around reproductive principles, and the other half is centered around cell physiology. Laboratory topics and sequence integrated with lecture.

### BIOL 208. PLANTS AS ORGANISMS (4)

This course is part of the sequence of courses required for students pursuing some field in biology. It is a required course for all students seeking a teaching field in biology, chemistry, or general science. The emphasis is on physiological and field approaches involving the use of plants to illustrate general principles of biology. Attention is given to the morphological framework within which the physiological activities occur. The activities in plants are related to the patterns in which they impinge upon the economy of nature.

### BIOL 209. ANIMALS AS ORGANISMS (4)

The study of general principles of biology that are either distinctive for the animal kingdom or readily illustrated with zoological materials. Emphasizes the process of living, whole organism

integrated with those principles of histology, morphology, and phylogeny that are required for a balanced understanding of physiology, development, and behavior. This is a required course for all students seeking a teaching field in biology, chemistry, or general science.

#### **BIOL 225. HUMAN ANATOMY AND PHYSIOLOGY (3)**

One course in a two course sequence that considers the anatomy and physiology of the human organism. In a lecture format, the cardiovascular, lymphatic, respiratory, urinary, and digestive systems are studied in this course. Students taking this course should possess a high school level understanding of biology and chemistry.

#### **BIOL 226. HUMAN ANATOMY AND PHYSIOLOGY (3)**

One course in a two course sequence that considers the anatomy and physiology of the human organism. In a lecture format, the nervous, endocrine, and reproductive systems are studied in this course. Students taking this course should possess a high school level understanding of biology and chemistry. This course may be taken before BIOL 225.

#### **BIOL 227. HUMAN ANATOMY AND PHYSIOLOGY LAB (1)**

A laboratory course in human anatomy and physiology to be taken concurrently with or following BIOL 225.

#### **BIOL 228. HUMAN ANATOMY AND PHYSIOLOGY LAB (1)**

A laboratory course in human anatomy and physiology to be taken concurrently with or following BIOL 226.

#### **BIOL 280. FOOD MICROBIOLOGY AND FOOD SAFETY (3)**

This course will provide a brief history of man's awareness of the presence and role of microorganisms in nature and in foods. Foodborne microorganisms are presented in the context of their continual recycling of the elements of organic matter, the intrinsic and extrinsic parameters of foods that affect their growth and activity. Traditional methods of examining foods for microorganisms and/or their products. This study will include chemical and physical properties of food to understand the following: incidence of microorganisms in foods, food spoilage, food preservation, food poisoning, food preparations, fermentation, biological hazards in foods, food sanitation, and food quality. Laboratory activities and demonstrations, including diagnostics, will be a part of the course. Prerequisites: Students taking this course should possess high school level understanding of biology and chemistry.

#### **BIOL 302. MICROBIOLOGY (4)**

Part of the required curriculum in nursing and medical technology and a recommended elective for any biology student. The course will emphasize the impact of microbial activity on human health and disease, including the conditions contributing to microbial increase, spread and virulence, conditions contributing to the body responses leading to resistance and immunity, and methods of interceding in the usual etiology for the purpose of bringing about informed control. The nonmedical aspects of microbiology also will be considered, in regard to the basic activities of interacting biological systems, as symbionts, as critical energy conversion agencies, as agents in driving biogeochemical cycles, and as experimental subjects for the discovery of basic biological principles such as intermediary metabolism and the genetic code. Prerequisites: One semester of a college level biology course and one semester of a college level chemistry course.

#### **BIOL 305. CELL BIOLOGY (4)**

Sophomore-level lecture and laboratory course in which eukaryotic cells are considered as the basic structural and functional units of biological organization. Selected cell structures and activities are discussed from the cytological, ultrastructural, and metabolic points of view. Laboratory work is sequenced with lecture. Topics emphasized are bioenergetics, macromolecular and transport synthesis, regulation of cellular activities, and internal organization of cells. Prerequisites: BIOL 208; BIOL 209, or BIOL 225 and BIOL 226; CHEM 207, 207L, 209, 209L, or their equivalents.

### **BIOL 310. PLANT PATHOLOGY (3)**

A study of the morphology, life history, host range, and physiology of the plant pathogenic fungi, bacteria, nematodes, and viruses, and a study of the symptoms, pathological anatomy, physiological responses, economic importance, and control measures of the more important plant diseases. Prerequisite: BIOL 208.

### **BIOL 313. INVERTEBRATE NATURAL HISTORY (4)**

A field-oriented study emphasizing living organisms in their natural habitats, their life cycles, and interaction with humans, other organisms, and the physical environment. Collection, culture, and identification of the major orders of the parasitic and free living freshwater and temperate terrestrial invertebrate phyla. Prerequisites: BIOL 208, BIOL 209.

### **BIOL 324. PLANT TAXONOMY I FALL FLORA (2)**

First eight weeks of first semester. Field work in the identification of grasses, fall flowers, and woody plants. Designed to illustrate the principles of nomenclature and descriptive morphology. Prerequisite: BIOL 208.

### **BIOL 325. PLANT TAXONOMY II SPRING FLORA (1)**

Second eight weeks of second semester. Field work in the identification of ferns and spring flowering plants. Designed to illustrate the principles and applications of scientific nomenclature and descriptive morphology. Prerequisite: BIOL 208.

### **BIOL 332. COMPARATIVE ANATOMY (4)**

A comparative study of organs and systems of representative forms of chordates keeping in mind the evolutionary development and relationships of these forms. Concepts of embryology are applied to an understanding of the adult organism. Laboratory work is concerned with a detailed dissection and comparative study of the amphioxus, necturus, dogfish, and cat. Prerequisite: BIOL 209 or equivalent.

### **BIOL 344. GENETICS AND EVOLUTION (4)**

Mechanisms of inheritance, the nature of genes, and genetic systems are examined in relation to the capacities of living systems for continuity, self-regulation, and adaptive change. Molecular, cellular, and organismal reproduction are considered as processes of information storage, transfer, and generation. The evolution of the gene concept is traced from its origin in mathematical abstraction, through progressive definition as a unit of nuclear structure and function, to final characterization as nucleic acid. Prerequisites: BIOL 208, BIOL 209, BIOL 301.

### **BIOL 350. SPECIAL TOPICS FOR NON-MAJORS (1-3)**

Elective in biology intended to stimulate an interest in nature or in areas of biology having public interest or political significance. Bird life, local flora, economic botany, psychopharmacology, and biological energy resources are representative topics. Persons interested in a specific topic should contact the department chair. Permission of instructor.

### **BIOL 394. PRINCIPLES OF BIOLOGICAL RESEARCH (3)**

A junior level course taken after the student has completed introductory courses in biology, chemistry, and mathematics. Statistics is recommended prior to the course. The lectures will address the history/background of science and the special properties of the scientific process and the basic abilities required to conduct scientific inquiry. Emphasis will be given to the universality of the scientific approach to problem solving rather than to specific methodologies. Topics included are literature review, experimental design, data analysis, scientific communication, and research ethics. The course also is intended to prepare the student for the Research Internship Program required of all biology majors. During the course students will be given an application form for the internship program. Completed forms will be reviewed by the faculty and students will be assigned to either an internship (BIOL 425), biological research (BIOL 415), or alternative study (BIOL 415). Prerequisites: BIOL 208, BIOL 209, BIOL 305, BIOL 344.

**BIOL 401. HISTOLOGY (4)**

A study of microscopic anatomy emphasizing organology, histology, and cytology. It embraces a study of function and structure which complements the study of gross anatomy, but provides a structural basis for the study of physiology. Prerequisites: BIOL 209 or BIOL 225, and BIOL 226.

**BIOL 404. IMMUNOLOGY (4)**

A senior-level lecture and laboratory course designed to introduce the student to the study of immunological processes and the methods used to initiate, describe, differentiate, and measure such processes. Attention is given to the biological basis of immunity, the nature of the humoral and cell mediated immune responses, the chemical and biological features of immunoglobulins, *in vivo* and *in vitro* antigen antibody interactions, and immunologic diseases. Prerequisites: BIOL 305, BIOL 344, CHEM 315, CHEM 315L, CHEM 316, CHEM 316L.

**BIOL 406. DEVELOPMENTAL BIOLOGY (4)**

Concentrates upon mechanisms and principles involved in cellular differentiation and integration that accompany development of organisms from single cells into complex, multicellular structures. Beginning with relatively simple organisms and progressing to more complex examples of higher plant and animal developmental processes, the student is exposed to both descriptive information and experimental investigative techniques. Prerequisites: BIOL 208, BIOL 209, BIOL 305, BIOL 344.

**BIOL 410. PLANT PHYSIOLOGY (3)**

Primarily a laboratory study of the chemical, physical, and biological activities of seed plants. Photosynthesis, respiration, transpiration, senescence, dormancy, photoperiodism, translocation, and endogenous rhythms will be studied, including the role of hormones, auxins, phytohormones, pigment systems, energy transport systems, and enzymes in regulating the physiologic processes of plants. The modern roles of plant physiology in energy production, industrial resources, and agricultural productivity are discussed. Prerequisites: BIOL 208 and a specific course or permission of instructor.

**BIOL 412. ANIMAL PHYSIOLOGY (3)**

Detailed study of selected topics, e.g. muscle contraction, circulation, excretion, to demonstrate the diverse ways in which different kinds of animals meet their functional requirements. Prerequisites: BIOL 208 and BIOL 209 or equivalent and CHEM 207, CHEM 207L, CHEM 209, and CHEM 209L.

**BIOL 413, BIOL 414. SEMINAR IN BIOLOGY (1 each)**

Recommended for juniors and seniors pursuing at least a minor program in biology. This course emphasizes library research and oral presentation of subjects of interest and importance in the various fields of biology. Permission of biology staff.

**BIOL 415. BIOLOGICAL RESEARCH (3-6)**

Students are given an opportunity to work on a research problem usually after a core course or seminar in which the student has already done some preliminary work. This work is done under the direction of the biology staff. Permission of department chair.

**BIOL 416. MOLECULAR BIOLOGY (4)**

An advanced level course on techniques and theory of modern genetics and biotechnology. The course is designed to expose students to modern biochemical genetics, gene regulation in prokaryotes and eukaryotes, and mechanisms for the rearrangement and exchange of genetic material. Prerequisite: BIOL 208, BIOL 209, BIOL 305, and BIOL 344.

**BIOL 418. VIROLOGY (4)**

A senior-level lecture and laboratory course in which the nature of viruses and their interactions with prokaryotic and eukaryotic cells and organisms are presented. The emphasis is on animal viruses but bacterial and plant viruses will be covered. The first section of the course treats viral

structure, viral replication, and viral effects at the cellular and organismic level. The second section discusses viral virulence, the disease states produced by animal viruses in their hosts, antiviral therapies, mechanisms of viral immunity, and viral epidemiology. Laboratory exercises will be sequenced with lectures and include development of animal cell cultures, demonstration of viral cytopathic effect, determination of viral titer, viral neutralization assays, immunological detection of virus, and analysis of viral structural components. Laboratory exercises will employ bacterial, insect, plant, and animal cells as viral hosts. Prerequisites: BIOL 305, BIOL 344, CHEM 315, CHEM 316, CHEM 315L, and CHEM 316L and permission of instructor.

#### **BIOL 420. GENERAL ECOLOGY (4)**

This course emphasizes principles at the population, community, and ecosystem levels of organization. Representative topics include energy flow, biogeochemical cycles, population regulation, types of ecosystems. Consideration given to society's relationship to its environment. Prerequisites: BIOL 208 and BIOL 209 or equivalent, BIOL 305, BIOL 344, BIOL 394.

#### **BIOL 425. INTERNSHIP IN BIOLOGY (3-6)**

This course awards academic credit for a Biology Department approved work experience in a field, laboratory, clinic, or other professional setting so that a student may gain practical knowledge in pure or applied research in biology. A student wishing to enroll in this course must submit a written proposal (following departmental and/or agency guidelines that can be obtained from the chair of the Biology Department) to the chair of the Biology Department or his or her appointed representative before the end of 12th week of the semester preceding the internship. All proposals must be approved by a majority of the faculty members of the Biology Department. Prerequisite: BIOL 394.

#### **BIOL 450. SPECIAL TOPICS IN ADVANCED BIOLOGY (1-4)**

Elective for students who have had upper-division biology courses. Intended to diversify or specialize a student's training beyond the regular curriculum, taking advantage of a local person's particular interest or skill, or of a faculty member's interest or skill. The course will be pursued in a less formal but no less intensive fashion than the regular courses. Interested students should present specific proposals to the department chair.

## **BUSINESS ADMINISTRATION**

#### **BADM 150. INTRODUCTION TO BUSINESS (3)**

A survey designed to acquaint the student with administration, production, labor, control, distribution, finance, taxation, law, and ethics as applied to business. Includes a brief history of business and the organization of business. For associate degree students and non-majors. Does not carry business administration credit toward the B.S. in business administration or hotel-motel and restaurant management.

#### **BADM 205. CALCULUS WITH APPLICATIONS (4)**

See MATH 205

#### **BADM 212. BUSINESS LAW I (3)**

A broad introduction to contemporary law as it relates to the business environment including contract, sales, employment law, antitrust law, torts, consumer protection, and business organization. Prerequisite: Sophomore standing.

#### **BADM 224. BUSINESS STATISTICS (3)**

Methods of collecting, presenting, analyzing, and interpreting business data. Emphasis on the understanding of probability distributions such as the binomial, normal, exponential, and Poisson. Discussion of regression and correlation, hypothesis testing, chi-square analysis, and one way ANOVA. Students may not receive credit for both this course and MATH 314. Prerequisite: MATH 154.

**BADM 280. BUSINESS AND SOCIETY (3)**

This course reviews ethical and global issues; the influence of political, social, legal, regulatory, environmental, and technical issues; and the impact of demographic diversity on organizations in our local, state, and regional businesses and in international businesses located in our area.

**BADM 292. INTERNSHIP IN BUSINESS (1-6)**

Practical experience in local, regional, and Washington Gateway organizations such as government offices, museums, arts agencies, social action groups, research laboratories, and private corporations/companies. Interns learn how to translate classroom theory and methods into professional skills and opportunities. Usually offered every term. May be repeated. Prerequisite: Must have sophomore class standing with minimum 2.5 overall and 2.75 major GPA, approval of academic department, and placement by Career Center. May be repeated.

**BADM 300. INTRODUCTION TO FINANCIAL MANAGEMENT (3)**

An introduction to the methods of corporation finance with an emphasis on applied problem solutions. Particular attention is given to financial decision making and risk analysis. Prerequisites: ACCT 202 and BADM 224.

**BADM 301. MONEY MARKETS AND FINANCIAL INSTITUTIONS (3)**

An analysis of the U.S. financial system, its major participants, its role in the process of economic activity and development, and its procedures for assessing and pricing risk.

**BADM 302. INTERMEDIATE FINANCIAL MANAGEMENT (3)**

A continuation of the material in BADM 300. Emphasis on capital budgeting, risk, capital structure and dividend policy, working capital management, mergers and acquisitions, financial distress, and international corporate finance. Case studies and computer exercises are included. Prerequisite: BADM 300.

**BADM 308. FINANCIAL PLANNING AND INSURANCE (3)**

A beginning course that covers the financial planning process and insurance. The course will examine regulatory and ethical issues, develop the theory of risk tolerance, review time value of money, discuss the principles of risk management, review various types of insurance (including life, health care, disability, long term, property, and liability), and consider the ethical and legal issues in both the planning process and risk management. Prerequisite: BADM 300.

**BADM 310. PRINCIPLES OF MANAGEMENT (3)**

Concepts and analyses of the behavioral aspects of organizations. Expansion of integrative and human skills needed by managers. Lectures are supplemented by outside projects and simulated applications of management techniques. Prerequisite: ACCT 201 or ECON 206.

**BADM 311. SMALL BUSINESS MANAGEMENT (3)**

A survey of the various management/marketing principles and subject materials as they specifically relate to small business management. This includes topics such as entrepreneurship and small business in the U.S., small business start-up issues, the marketing of small business, contemporary issues, and the general operational management concerns associated with organizing, staffing, financing/cash flow, purchasing, inventory control, and total quality management.

**BADM 313. BUSINESS LAW II (3)**

A detailed study of the law of secured transactions, employment, insurance, negotiable instruments, estates, bankruptcy, and suretyship. The Uniform Commercial Code is discussed in detail. Recommended for students who plan to take the CPA examination. Prerequisite: BADM 212.

**BADM 317. REAL ESTATE (3)**

A basic study of the nature and importance of real estate in the economy; principles of land utilization and urban development; property rights and real estate; valuation of real property; real estate markets; and government regulation and programs.

**BADM 318. REAL ESTATE LAW (3)**

Sources of real estate law, both cases and statutes, including estates in land, conveyances, lease mortgages, easements, zoning, brokers, contracts, taxes, foreclosures, and open occupancy.

**BADM 320. EMPLOYMENT LAW (3)**

A detailed study of employment law from the inception of the Sherman Act of 1890 through more definitive legislation such as the Wagner Act, Civil Rights Act, EEO Act, and Americans With Disabilities Act. Case studies will be used reflecting current employment case law practices and trends. Public policy as the heart of employment law is discussed in detail. Prerequisites: BADM 212 and BADM 310.

**BADM 323. HUMAN RESOURCE MANAGEMENT (3)**

A study of manpower planning, recruitment, selection, and development of employees. Examines compensation, employee appraisal, job analysis, collective bargaining, arbitration, and labor relations. Case studies.

**BADM 324. LABOR PROBLEMS/COLLECTIVE BARGAINING (3)**

An examination of the history of labor movements and social problems arising from relations between labor and management. A study of the collective bargaining process and a survey of management and union rights in collective bargaining are discussed. Case studies and readings in management and union philosophy also are included. Prerequisite: Junior standing in business.

**BADM 338. BUSINESS INFORMATION SYSTEMS (3)**

An analysis of where, when, and in what form information is captured in order to make business management decisions. A detailed study of the planning, operating, and reporting phases in obtaining information within a business enterprise. Does not apply as an elective in the minor in computer programming and information systems. Prerequisite: ACCT 202.

**BADM 340. MARKETING (3)**

An introduction to the marketing management process. Including the selection of target market, the development of product, pricing, promotion, and channel of distribution programs to effectively serve these markets. Specialized topics such as international marketing, consumerism, and ethical issues in marketing are also examined. Prerequisites: ACCT 201 or ECON 206.

**BADM 345. BUSINESS COMMUNICATIONS (3)**

The course examines the communications for business and develops an ability to utilize various communications techniques including memos and letter writing, report development and presentation, résumé and job search, listening, interviewing, and interpersonal and oral communications. Open to all concentrations. Prerequisite: Sophomore standing.

**BADM 350. RETAILING (3)**

A study of retail store operations and management including site selection, merchandise planning, developing store image, pricing, promotion, personnel, and control. Prerequisite: BADM 340.

**BADM 359. INTERNATIONAL BUSINESS (3)**

A study of global business from the perspective of marketing including cultural consideration, implementation of strategies, and management concerns including developing business alliances and hiring and training of foreign staff.

**BADM 365. PROMOTIONAL STRATEGY (3)**

Promotion as a tool for making decisions. Advertising, personal selling, publicity, and sales promotion for profit and nonprofit organizations. Both theory and application are stressed. Projects within the local communities will be assigned to students when available. Prerequisite: BADM 340.

**ADM 375. STRATEGIC MARKETING (3)**

Both a conceptual and a pragmatic approach to the strategic marketing planning process. The contributions of marketing concepts, philosophy, and methodology to strategic management and linkage between marketing and corporate strategy. Prerequisites: BADM 224 and BADM 340.

**ADM 385. BUSINESS EXTERNSHIP (1-6)**

Application of theoretical concepts to practical experience in business. Minimum of 50 hours of work experience for each credit is required. May be repeated for credit. Usually offered every session. Prerequisites: Approval of academic advisor and chair. May be repeated for credit.

**ADM 392. COOPERATIVE EDUCATION IN BUSINESS (1-9)**

May be repeated for credit, but not in the same term; topic must be different. Usually offered every term. Prerequisite: Must have junior level standing with minimum 2.5 overall and 2.75 major GPA, approval of academic department, and placement by the Career Center. May be repeated for credit.

**ADM 395. CONSUMER BEHAVIOR (3)**

Macro and micro consumer behavior. The influence of psychological, sociological, and cultural factors on behavior of consumers and industrial buyers. Shows how this knowledge is indispensable to the marketing manager when making decisions about product, price, and channels of distribution. Prerequisite: BADM 340.

**ADM 401. FINANCIAL ANALYSIS (3)**

In-depth study of the theories and techniques of corporate financial management. An analysis of the procedures for extracting information from the corporate information system and modifying it for use in financial analysis. Prerequisite: BADM 300.

**ADM 405. MARKETING RESEARCH (3)**

Examines research as a decision tool for marketing management and the role of research in marketing, risk reduction, decision-making, problem definition, research design, sampling, data collection and analysis, and interpretation of results. Both theory and application are stressed. Projects within the local communities will be assigned to students when available. Prerequisites: ADM 340 and BADM 224.

**ADM 407. BUSINESS STRATEGY AND POLICY (3)**

Capstone course study in business management designed to integrate the basic disciplines of business through case analysis and other methods; oral and written reports, ETS Business Achievement Test administered. Prerequisites: BADM 300 or permission.

**ADM 411. ENTREPRENEURSHIP AND NEW VENTURE FORMATION (3)**

Comprehensive coverage of the various tools, documents, and subject materials utilized to start and maintain a small business. This includes the entrepreneurial perspective (challenges, characteristics, self-assessment), starting a new venture/developing the business idea, developing the business/marketing/financial organizational plans, financing the new venture, managing the new venture, and coverage of special issues such as legal, franchising, and international entrepreneurship. Prerequisites: ACCT 202, BADM 310, BADM 311, BADM 340.

**ADM 413. QUANTITATIVE METHODS (3)**

Continuation of BADM 224. This course examines simple regression and correlation, two sample inference, analysis of variance, multiple regression and correlation, chi-square tests, time series forecasting, decision making under certainty and uncertainty, and subjective probability. Prerequisite: 3 hours of statistics. Same as MATH 413.

**ADM 415. OPERATIONS AND PRODUCTION MANAGEMENT (3)**

Analysis of operational problems and opportunities in service and manufacturing sectors, site

location, facilities design, forecasting, work methods and measurement, inventory management and operations decision making. Prerequisites: BADM 224 and BADM 310.

### **BADM 425. INVESTMENTS (3)**

Examines basic theories and their application to major financial markets: risk and return; market efficiency; portfolio theory; and investment selection and timing decisions. Prerequisite: corequisite: BADM 300.

## **BUSINESS EDUCATION**

### **BSED 103. KEYBOARDING (2)**

Presents the development of speed and accuracy in the operation of the alphabetic, numeric, and symbol keys on microcomputers. Basic document production of letters, memos, reports, and tables is included. Offered for business majors and data processors who need basic keyboarding skills.

### **BSED 104. DOCUMENT PROCESSING (3)**

A continuation of BSED 103, Keyboarding, with further development of speed and accuracy in the production of business documents. Emphasis will be given to high production quality in the typing of varied office simulations during the semester. A minimum of 45 words per minute for five minutes is required upon completion. Prerequisite: Keyboarding.

### **BSED 250. INTRODUCTION TO OFFICE TECHNOLOGY (3)**

An introductory course on the use of state-of-the-art technology and skills necessary in today's business office. Applied learning experiences will be designed to meet the needs of the office professional and assistant. Prerequisite: BSED 103 or keyboarding skill.

### **BSED 292. INTERNSHIP IN BUSINESS EDUCATION (3)**

Practical experience in local, regional, and Washington Gateway organizations such as government offices, museums, arts agencies, social action groups, research laboratories, and private corporations/companies. Interns learn how to translate classroom theory and methods into professional skills and opportunities. Usually offered every term. May be repeated. Prerequisite: Must have sophomore class standing with minimum 2.5 overall and 2.75 major GPA, approval of academic department, and placement by Career Center. May be repeated for credit.

### **BSED 329. OFFICE SYSTEMS SOFTWARE (3)**

Emphasizes advanced concepts of word processing and integrated information software including spreadsheets, data base, and desktop publishing. Prerequisite: CIS 102 or BSED 250.

### **BSED 380. DESKTOP PUBLISHING (3)**

A hands-on approach to desktop publishing using PageMaker and Windows. Students will learn how to design and compose pages, integrate text and graphics, and produce various types of publications, such as brochures, catalogs, and newsletters. Students will explore the basic publishing process, the fundamental principles of typography, typesetting, design, and graphics to produce professional-looking documents. Prerequisite: CIS 102 or BSED 250.

### **BSED 392. COOPERATIVE EDUCATION IN OFFICE TECHNOLOGY (1-6)**

Supervised work experience directly related to a student's major subject area and/or career goals and interests. Student will integrate classroom theory and work applications. Offered every semester. Prerequisite: Junior class standing with minimum 2.5 overall GPA and 2.75 major GPA, approval of academic department; must be admitted to Teacher Education Program. May be repeated for credit.

## **CHEMISTRY**

### **CHEM 100. CHEMICAL SCIENCE (3)**

This course is designed primarily for future elementary school teachers. It introduces the student to the basic concepts of chemistry including atoms, radioactivity, bonding, chemical equations

solutions, acids and bases, and some aspects of organic and biochemistry. The latter part of the course is devoted to the study of chemical science as it applies to the elementary school: mini-lectures, demonstrations, experiments, games, textbook and journal reviews are presented by the students. Circumstances permitting, the course ends with practice teaching at an elementary school. Computers are used as aids to instruction and as laboratory tools. The course CHEM 100L must be taken concurrently with this course.

#### **CHEM 100L. CHEMICAL SCIENCE LABORATORY (1)**

The laboratory emphasizes learning by discovery and by student-designed (or modified) experiments. Current or prior enrollment in CHEM 100 is required.

#### **CHEM 101. CHEMISTRY IN SOCIETY I (3)**

A study of the fundamental principles of chemistry with particular emphasis on the role of chemistry in our culture and everyday affairs. Topics to be covered include the scientific method, atomic theory, redox chemistry, organic chemistry, and nuclear chemistry. The sequence CHEM 101 and 102 can be used to fulfill the general studies requirement of a year of laboratory science. This course must be taken before CHEM 102 Chemistry in Society II.

#### **CHEM 102. CHEMISTRY IN SOCIETY II (3)**

The further development of the topics covered in CHEM 101 with expansion of materials to include energy, natural resources, consumer products, ecological chemistry, toxicology, and drugs. Prerequisite: CHEM 101.

#### **CHEM 101L, 102L. CHEMISTRY IN SOCIETY LABORATORY (1 EACH)**

The laboratory emphasizes the learning by discovery and by student-designed (or modified) experiments. Current or prior enrollment in CHEM 101, CHEM 102 is required. Prerequisite for CHEM 102L is CHEM 101L.

#### **CHEM 120, CHEM 122. COLLEGE CHEMISTRY (3 EACH)**

An in-depth treatment of the fundamental principles of chemistry and their application to physiological, pharmaceutical, and biochemical processes. The courses CHEM 101L and CHEM 102L must be taken simultaneously with the appropriate semester of CHEM 120 and CHEM 122. Together with CHEM 120L and CHEM 122L, this course can be used to fulfill the general studies requirement of a year of laboratory science.

#### **CHEM 120L, CHEM 122L. COLLEGE CHEMISTRY LABORATORY (1 EACH)**

This course introduces the student to the isolation of natural products, the synthesis of drugs, biochemical reactions, and the use of modern instrumentation for the separation and the qualitative and quantitative analysis of chemicals. College Chemistry Laboratory must be taken simultaneously with the appropriate semester of College Chemistry (CHEM 120 and CHEM 122).

#### **CHEM 207, CHEM 209. GENERAL CHEMISTRY (3 EACH)**

A first-year chemistry course for students whose major area of study is biology, chemistry, mathematics, medical technology, pre-medicine, or pre-pharmacy. Studied are such fundamental concepts of chemistry as the structure of atoms and compounds; the nature of solids, liquids, and gases; the reactions of inorganic and organic compounds; the study of acids, bases, buffers, and salts; and kinetics, equilibrium, and electrochemistry. CHEM 207 is offered in the fall; CHEM 209 in the spring. CHEM 207L and CHEM 209L are to be taken with CHEM 207 and CHEM 209 respectively. Prerequisite: Background in chemistry and algebra.

#### **CHEM 207L. GENERAL CHEMISTRY LABORATORY I (1)**

A three-hour per week laboratory course in general chemistry. Topics are selected from qualitative inorganic analysis, spectroscopic analysis, gas laws, calorimetry, and chromatography. Should be taken concurrently with CHEM 207.

### CHEM 209L. GENERAL CHEMISTRY LABORATORY II (1)

A three-hour per week laboratory course in general chemistry. Topics are selected from volumetric analysis, spectroscopic analysis, electrochemistry, synthesis, gas laws, and chromatography. Should be taken concurrently with CHEM 209.

### CHEM 301. INORGANIC CHEMISTRY (3)

The theoretical principles of chemical bonding and molecular structure are correlated with the chemical and physical properties of inorganic compounds. Includes covalent and ionic bonding, periodic trends, systematic study of the representative, transition, inner-transition and inert gas elements, structure determination, and reaction mechanisms. Prerequisites: CHEM 207, CHEM 209.

### CHEM 308. RADIOCHEMISTRY (3)

A study of the principles underlying the nature of radioactivity and of the various chemical, biological, and industrial applications of radioisotopes. Particular emphasis is placed on stellar nucleosynthesis, fission, fusion, reactor design, accelerators, and theories of the nucleus. Prerequisites: CHEM 207, CHEM 209.

### CHEM 311. CHEMICAL PHARMACOLOGY (3)

This course is an introduction to the structure, mechanisms of action, and clinical applications of drugs currently in use. The emphasis is on general pharmacological principles and on a survey of a wide spectrum of agents; chemical aspects of pharmacology are stressed where they contribute significantly to the understanding of drug action. Prerequisites: One semester of anatomy/physiology and one semester of chemistry; or, permission of the instructor.

### CHEM 315, CHEM 316. ORGANIC CHEMISTRY (3 EACH)

This course is designed for students with an interest in chemistry, the life sciences, or in health-related fields. It surveys the classes of organic compounds from hydrocarbons to synthetic and natural macromolecules. Attention is focused on the applications of organic chemistry to biological, medical, and energy-related problems. Prerequisites: CHEM 207, CHEM 209. The courses CHEM 315L and CHEM 316L must be taken concurrently with CHEM 315 and CHEM 316, respectively.

### CHEM 315L. ORGANIC CHEMISTRY I LABORATORY (1)

This laboratory features organic synthesis, mechanistic studies, and modern instrumental techniques for the separation (using TLC, GC, or HPLC) and characterization (using IR, NMR, MS, or polarimetry) of organic compounds. Current or prior enrollment in CHEM 315 is required.

### CHEM 316L. ORGANIC CHEMISTRY II LABORATORY (1)

This course is a continuation of CHEM 315 and uses the same techniques. Current or prior enrollment in CHEM 316 is required.

### CHEM 321. ANALYTICAL CHEMISTRY (3)

A one-semester course covering the theory of classical volumetric, gravimetric, and electrochemical techniques and the calculations associated with these techniques. Also covered are the statistical methods needed for the critical evaluation of data. Prerequisites: CHEM 207, CHEM 209. CHEM 321L should be taken concurrently.

### CHEM 321L. ANALYTICAL CHEMISTRY LABORATORY (1)

A one-semester laboratory course covering the lab procedures for classical volumetric, gravimetric, and electrochemical analyses. Prerequisites: CHEM 207, CHEM 209, CHEM 207L, CHEM 209L. CHEM 321 should be taken concurrently.

### CHEM 322. INSTRUMENTAL ANALYSIS (3)

A one-semester course covering the theory and practice of modern instrumental methods of chemical analysis. Methods covered include atomic and molecular spectroscopy, chromatography,

hy, mass spectroscopy, surface analysis, and electrochemistry. Instrument design, sampling techniques, and analytical strengths and weaknesses of the various methods are covered. Prerequisites: CHEM 321 and CHEM 321L. CHEM 322L should be taken concurrently.

#### **CHEM 322L. INSTRUMENTAL ANALYSIS LABORATORY (1)**

One-semester laboratory course that provides experience with modern instrumental methods for chemical analysis. Techniques covered include atomic and molecular spectroscopy, chromatography, mass spectroscopy, and electrochemistry. CHEM 322 should be taken concurrently.

#### **CHEM 325. COMPUTERS IN SCIENCE (3)**

One-semester course that serves as an introduction to the use of computers for data collection, data analysis, and data presentation. Topics covered include scientific calculations and plotting with spreadsheets, elementary programming, scientific report writing, and computer interfacing to scientific instrumentation.

#### **CHEM 327. SOLUTION CHEMISTRY (3)**

One-semester course to be taken by the student in the sophomore or junior year. A study of the physical and chemical properties of the liquid state is pursued, with particular emphasis placed on aqueous solution. The preparation of solutions of various concentrations is reviewed. Thermodynamics is introduced. Other major areas are kinetics, equilibria between phases and electrochemistry. Prerequisites: CHEM 207, CHEM 209, MATH 105.

#### **CHEM 327L. SOLUTION CHEMISTRY LABORATORY (1)**

Three-hour per week laboratory course to be taken with Solution Chemistry CHEM 327. Aqueous and nonaqueous solutions will be prepared and their physical and chemical properties will be investigated. Corequisite or prerequisite: CHEM 327.

#### **CHEM 329. BIOCHEMISTRY I (3)**

Biochemical structure and function with initial emphasis placed on the properties of carbohydrates, lipids, and proteins and the relationship between structure and function. The special role of these biomolecules in the structure and function of biological membranes is then presented. This is followed by an introduction to enzymes and the mechanisms of enzyme action. Attention is then given to the nucleic acids and includes the genetic role, structure, and replication of DNA and the role of RNA in protein synthesis. Prerequisites: CHEM 315 and BIOL 305.

#### **CHEM 329L. BIOCHEMISTRY I LABORATORY (1)**

Three-hour per week laboratory course to be taken with CHEM 329 Biochemistry I. The course will comprise an overview and application of techniques associated with biochemical research, data gathering, and analysis. The students will be introduced to various computer-based methodologies of data analysis molecular modelling and presentation. In addition, the course will involve development of experimental design, reproducible lab techniques, and record keeping. Corequisite or prerequisite: CHEM 329.

#### **CHEM 330. BIOCHEMISTRY II (3)**

Basic concepts of metabolism with initial emphasis placed on the broad aspects of metabolism and includes a discussion of the energy requirements for reactions in living systems. The degradation of carbohydrates and the biochemical role of glycolysis, citric acid cycle, oxidative phosphorylation, and related pathways are then presented. This is followed by an examination of fatty acid metabolism, nucleotide biochemistry, and selected topics in biosynthesis. Attention is then given to mechanisms of hormone action, transport across biological membranes, and related membrane activity. Prerequisites: CHEM 329.

#### **CHEM 330L. BIOCHEMISTRY II LABORATORY (1)**

A second three-hours per week laboratory to be taken with CHEM 330 Biochemistry II. The course involves the application of techniques developed in CHEM 329L to problems associated

with characterization of carbohydrates, proteins, and nucleic acids. Included in the experiment performed is the development of purification techniques, enzyme kinetics, and spectroscopic analysis. Prerequisites: CHEM 329 and CHEM 329L.

#### CHEM 331, CHEM 332. SEMINAR (1 EACH)

This course may be taken more than once for credit. The selection, organization, and presentation of topics within one's area of interest in chemistry. Topics are selected from among the current literature, review articles, and reports in scientific journals. Prerequisites: CHEM 207, CHEM 209

#### CHEM 333. ENVIRONMENTAL CHEMISTRY (3)

The chemistry of environmental processes and problems. Topics include stratospheric chemistry, ground-level air chemistry and air pollution, the greenhouse effect and global warming, energy use and carbon dioxide emission, toxic organic and inorganic compounds, the chemistry of natural waters and water pollution, and waste management. Instrumentation for measuring pollutants is discussed. Prerequisite: One year of college-level chemistry.

#### CHEM 333L. ENVIRONMENTAL CHEMISTRY LAB (1)

The environmental chemistry laboratory will apply volumetric and instrumental techniques for the analysis of chemicals and instrumental techniques for the analysis of chemicals of environmental significance. Gas and liquid chromatography, mass spectroscopy, and atomic absorption among other techniques, will be employed.

#### CHEM 392. COOPERATIVE EDUCATION IN CHEMISTRY (1-9)

Cooperative education is a form of education which integrates classroom study with paid, planned, and supervised work experiences in the public and private sectors. Cooperative education allows students to acquire essential, practical skills by being exposed to the reality of the work world beyond the boundaries of campus, enhancing their self-confidence and career direction. An agreement is signed by the employer supervisor, the faculty supervisor, and the student. The co-op may be repeated for credit. Prerequisite: Sophomore standing; minimum 2.5 GPA, 2.5 major GPA; approval of the Department of Chemistry; placement by the Career Center

#### CHEM 415, CHEM 416. ADVANCED ORGANIC CHEMISTRY (1-3 EACH)

The content of the course is flexible and can be structured to meet the needs of the student. Possible orientations include: 1) a review and extension of the principles covered in Organic Chemistry, 2) a detailed treatment of the mechanisms of organic reactions, 3) a selective study of the synthesis of organic compounds, and 4) molecular orbital theory and rate processes as applied to organic chemistry. Prerequisites: CHEM 315, CHEM 316.

#### CHEM 427. SPECTROSCOPY (3)

A study of the classical and quantum theories of the interaction of radiation with matter, including an introduction to the Schrodinger wave equation. The absorption and emission of radiation by atoms and molecules are treated, with particular emphasis being placed on ultraviolet, visible, and infrared spectroscopy and resonance phenomena. Prerequisites: CHEM 207, CHEM 209, PHYS 201, PHYS 202 and math through calculus.

#### CHEM 427L. ADVANCED PHYSICAL CHEMISTRY LAB (1)

A three hour per week laboratory course that covers advanced physical chemical laboratory methods. Techniques covered include spectroscopy (infrared, NMR UV-visible absorption), surface chemistry and electrochemistry. Prerequisites: CHEM 327 and CHEM 327L. CHEM 427 or should be taken concurrently.

#### CHEM 428. THERMODYNAMICS (2)

A study of the principles underlying the content and transfer of energy in physical and chemical reactions. The classical laws of thermodynamics are introduced, and the concepts of free energy, entropy, work, and enthalpy are defined and subjected to a careful quantitative treatment. Prerequisites: CHEM 207, CHEM 209, PHYS 201, PHYS 202 and math through calculus.

**CHEM 436. ADVANCED PROTEIN CHEMISTRY (3)**

The course is designed as an independent/directed study with a weekly seminar component. The material to be covered will be an in-depth review of the structure and function relationships of proteins. Computer modeling and structure analysis and review of the current primary research literature will be used. The course is divided into four major topics of discussion: Part 1, a review of secondary and tertiary structure; Part 2, folding patterns and analysis and prediction of structure; Part 3, specific enzymology and protein chemistry; and Part 4, analysis of protein function by protein engineering and biophysical methods.

**CHEM 450. RESEARCH IN CHEMISTRY (1-3)**

This course involves the student in research in chemistry. The course is given for 1-3 credits per semester and may be taken repeatedly. CHEM 392 Cooperative Education in Chemistry may be substituted for CHEM 450.

**COMMUNICATIONS****COMM 202. FUNDAMENTALS OF SPEECH (3)**

A required course for all students with focus upon the skills of sending and receiving clear messages. Audience analysis, the organization of the message, listening awareness, and the management of communication apprehension are foremost among the course objectives. Students participate in communication exercises and deliver a variety of speeches of different formats.

**COMM 203. INTRODUCTION TO MASS COMMUNICATION (3)**

A prerequisite for all courses in the mass communications major, mass communication minor, and journalism minor. The course is designed to provide students with a general background in all facets of communication and media. Topics include print, broadcast, electronic, and institutional communication, as well as advertising, public relations, and music.

**COMM 222. VOICE AND DICTION (3)**

This course is designed to improve speaking through the understanding and application of principles for proper breathing techniques, projection, articulation, inflection, and pronunciation. Through readings in dramatic literature, poetic and prose, as well as the application of theories in vocal production, the course improves voice quality as it develops the student's reading and speaking abilities. Prerequisite: COMM 202, 203.

**COMM 302. WRITING FOR THE MASS MEDIA (3)**

Differences between writing for the mass media and other forms of writing are explored through subject matter, purpose, audience, and circumstance. Students write for print, broadcast, and the Web in various style formats of news, features and sports. Prerequisites: COMM 202, 203.

**COMM 320. PRESENTATIONS FOR MEDIA (3)**

This course emphasizes improving the individual's nonverbal communication and vocal skills for print, broadcast media. Students combine broadcast theory with practical skills to enhance understanding of and performance of all types of broadcast material. Prerequisite: COMM 202 and COMM 203.

**COMM 326. RADIO PRACTICUM (3)**

A course in which the student, assigned a specific musical format, prepares and executes weekly programs complete with musical selections, news headlines, announcements, and a program host. To qualify, the student must be capable of operating all studio equipment. Prerequisites: COMM 202, COMM 203. May be repeated once.

**COMM 329. SOUND DESIGN (3)**

A course in the creation and critique of audio productions for radio and video. The course explores both the theory and practice of acoustic communication and sound design. It considers

both the aesthetics of electroacoustic communication and the social, cultural, and institutional contexts of radio broadcasting. Prerequisites: COMM 202, COMM 203.

### COMM 331. INTERCOLLEGIATE FORENSICS (2)

A course which insists that competition accelerates rhetorical competencies in debate at individual events. In the former, students compete against teams from other colleges by debating topics which have been chosen at the national level. In the latter, students display their understanding of literary texts as well as current events by competing against other students in faculty-judged circumstances. In both debate and individual events, overnight travel is likely and the course may be repeated. Prerequisites: COMM 202.

### COMM 339. PUBLIC RELATIONS WRITING AND DESIGN (3)

Collaboration with the graphic design program provides insight into the function of public relations. Effective communication strategies will include newsletters, pamphlets, brochures, and web pages as well as writing technique and style for print and broadcast. Prerequisites: COMM 202, COMM 203, COMM 302.

### COMM 342. MEDIA STUDIES (3)

A course that investigates the significance of contemporary media, cultural ideals, beliefs, and values. The course considers the significance and impact of media on our experience of social community, culture, society, and world. The course will engage students in the critical practice of reading, decoding, and interpreting cultural texts and practices. Prerequisites: COMM 202, COMM 203.

### COMM 350. SINGLE CAMERA PRODUCTION (3)

A course in video production that investigates the theory and practice of single camera projects such as the news piece, the documentary, the teleplay, the commercial, the music video, the industrial video, and the public relations video. Prerequisites: COMM 202, COMM 203.

### COMM 352. COMPUTER MEDIATED COMMUNICATION (3)

A course that focuses on the study, practice, and criticism of computer mediated communication. Students will develop projects using the Internet, World Wide Web, Gopher, WAIS, e-mail, and other emerging technologies. The course is designed to teach students to use effectively the technologies, to study the impact on society, and to think critically about that impact. Prerequisites: COMM 202, COMM 203.

### COMM 355. ADVERTISING AND IMAGERY (3)

A course that explores the significance and influence of advertising, public relations, and public opinion on contemporary culture. Case studies in the history, institutional practice, and aesthetics of advertising, public relations, and public opinion will be studied. The course will consider the social, political, cultural, and personal dimensions of interpreting advertising, public relations, and public opinion. Course projects will include the creation and development of an advertising and public relations campaign. Prerequisites: COMM 202, COMM 203.

### COMM 360. STUDIO PRODUCTION (3)

A course in video production that investigates the theory and practice of studio productions, such as news and talk shows. Attention will be given to directing and producing audio and camera in multi-camera production. Prerequisites: COMM 202, COMM 203.

### COMM 392. COOPERATIVE EDUCATION IN COMMUNICATIONS (1-6)

A capstone course involving all that the student has learned during enrollment in the program. Working through the Office of Cooperative Education and coordinating plans with the communications faculty, the student engages in an intensive co-op with an appropriate agency. Prerequisite: COMM 202 and COMM 203 and written approval from the Department of Communications.

### COMM 400. MEDIA LAW AND ETHICS (3)

An exploration of communication law intended to add to the student's appreciation of the legal process and its historical underpinnings. This course provides information designed to help communications specialists make informed judgments in situations with ethical and legal consequences. Prerequisites: COMM 202, COMM 203.

### COMM 402. SEMINAR IN COMMUNICATIONS (3)

A senior year alternative to COMM 450, this course focuses upon topics faculty believe are of interest to those who intend to continue advanced study in the field. Topics for the seminar are announced during early registration. Prerequisites: COMM 202, COMM 203.

### COMM 405. ADVERTISING, WRITING, AND DESIGN (3)

Professional advertising copywriting and advertising design philosophy combine to give the student background in the creation of print and broadcast advertising. Collaboration with the graphic design program allows original advertising campaigns to be developed. Prerequisites: COMM 202, COMM 203, COMM 302.

### COMM 420. ADVANCED PRODUCTION (3)

A course in which students develop and produce supervised original projects in electronic media. Projects may involve broadcasting, sound design, video, and multimedia. Prerequisites: COMM 202, COMM 203, and COMM 329 or COMM 350.

### COMM 435. MEDIA RESEARCH (3)

A course designed to provide students with a foundation in mass media research. The course will introduce students to a variety of methods including, but not limited to, content analysis, survey (with emphasis on demographic and ratings research), in-depth interview, and focus groups. Prerequisites: COMM 202, COMM 203.

### COMM 450. INTERNSHIP IN COMMUNICATION (3)

A capstone course in experiential learning. The student engages in writing a résumé, interviewing, and participating in an intensive internship, externship, or cooperative with an appropriate agency. Students may elect to intern in Washington, D.C., in conjunction with the Washington Gateway Program. Prerequisites: COMM 202, COMM 203, and written approval from the Department of Communications. May be repeated once.

### COMM 461. SENIOR PROJECT (3)

A required course for all communication seniors that brings together communication theory and practical experience into a final project and presentation. Original projects may include, but are not limited to, videos, audio tapes, papers, Web pages, and multimedia, and will be presented before the communications faculty and students. Two faculty members, selected by the student, will serve as advisors for the project. The course will serve as a final assessment of communications skills. This course is to be offered in the spring semester; students are expected to register in their last year of study.

## COMMUNITY AND TECHNICAL COLLEGE BUSINESS

### BUS 103. BASIC ACCOUNTING FUNDAMENTALS (3)

This course includes instruction in analyzing, journalizing, and posting business transactions, keeping financial records, and preparing financial statements. The course also provides an introduction to other important aspects of accounting including payroll, banking, petty cash, turns, allowances, discounts, and depreciation. While the single proprietorship form of business organization provides a basis for most of the discussion and work, an overview of partnership and corporate accounting is also included.

### **CBUS 150. INTRODUCTION TO BUSINESS (3)**

An introductory course to acquaint students with administration, production, labor, entrepreneurship, marketing, distribution, law, and ethics.

### **CBUS 275. MANAGEMENT AND LEADERSHIP (3)**

A primer on leadership aimed at developing a student's basic knowledge, skills, and abilities to realize his/her leadership potential. The course objective is to grow and develop effective leadership skills, to learn to direct the actions of others to attain the purposes and goals of the organization, and to acquire a comprehensive, fundamental understanding of leadership and responsibilities and accountabilities. Prerequisite: Student should have completed 24 credit hours in business or related courses or with approval of instructor.

### **CBUS 289. CAREER DEVELOPMENT AND LIFE PLANNING (1)**

This course will provide a foundation of career development skills and exploration of life planning issues. Components will include self assessment, academic exploration, study of career fields, and information interviewing. Job search areas of the course would include networking, résumé and correspondence writing, interview preparation, job search etiquette, decision making, work transition, and using the Internet in your job search.

### **CBUS 292. BUSINESS INTERNSHIP (3)**

This course provides practical experience in local and regional businesses, federal government or nonprofit organizations. Students learn how to translate classroom theory and methods into professional skills and opportunities. Prerequisite: Must have completed over half of the requirements for graduation with an associate's degree and must have a 2.5 overall GPA.

## **COMPUTER AND INFORMATION SCIENCES**

### **CIS 102. MICROCOMPUTER APPLICATIONS (3)**

An introduction to contemporary microcomputer application software and the Shepherd computing environment. Major emphasis on word processing, spreadsheets, and databases. Students learn to use e-mail and are introduced to the resources of the Internet.

### **CIS 104. INTRODUCTION TO COMPUTER AND INFORMATION SCIENCES (3)**

Provides an overview of the wide range of topics in computer and information sciences. Topics include computer number systems and theory of computation, computer hardware and organization, computer languages, programming, compilation, systems analysis and design, decision support, artificial intelligence, as well as ethical, global, and social issues.

### **CIS 206. INTERNET APPLICATIONS (1)**

Students learn the basic skills necessary to access the Internet via the World Wide Web. Students learn basic browser commands and the use of search engines for effective Web-based research. Students learn the basics of e-mail, HTML, and the creation of Web pages.

### **CIS 211. COMPUTER LANGUAGE CONCEPTS (4)**

A first course in the fundamentals of computer programming using an object-oriented programming language. Includes basic data types, problem solving and algorithm design methods, program design, coding, testing, and debugging. Students learn the programming characteristics of subprograms, parameter passing, and modularity. Includes formal laboratory session. Prerequisite: CIS 102 and CIS 104 recommended.

### **CIS 234. INTRODUCTION TO NETWORKING (3)**

Students will learn the fundamental concepts of networking. Case studies and hands-on projects will consider networking topics including hardware, protocols, architecture, media, design, implementation, and troubleshooting, maintaining, and upgrading computer networks.

### **CIS 287. SYSTEMS ANALYSIS AND DESIGN (3)**

The system life cycle, starting with the requirements statement and ending with system extinction.

replacement. Primary emphasis on the logical design phase of an information system. Includes explanations of both the traditional design approach and prototyping. Advantages and disadvantages of both approaches are examined. Prerequisite: CIS 211.

#### CIS 292. INTERNSHIP IN PROGRAMMING (1-6)

A form of independent study which integrates classroom study with supervised work experiences. Internships generally last no longer than a semester, and interns are not employees of the sponsoring company.

#### CIS 302. WINDOWS PROGRAMMING (3)

An in-depth study of the Windows graphical user interface (GUI). Students create powerful, full-featured applications which utilize the key features of Microsoft Windows, including multiple-document interface (MDI), object linking and embedding (OLE), dynamic data exchange (DDE) graphics, and calling procedures in dynamic-link libraries (DLLs). Prerequisite: CIS 211 or permission of instructor.

#### CIS 314. ADVANCED COMPUTER LANGUAGE CONCEPTS (4)

This course examines object-oriented programming and its use in software development. Topics include object-oriented design, classes and objects, code reusability, data hiding, polymorphism and inheritance. Prerequisite: CIS 211.

#### CIS 321. DATA AND FILE STRUCTURES (4)

The topics in this course include definitions and implementations of basic data structures including linked lists, stacks, queues, trees, and graphs and their applications; recursion as a algorithm design tool; and file organization and access techniques. Prerequisite: CIS 314.

#### CIS 324. INTRODUCTION TO ARTIFICIAL INTELLIGENCE (3)

An overview of artificial intelligence, its tools and techniques. Includes such subjects as fuzzy logic, non-procedural programming, basic search techniques, automated reasoning, and expert systems. Programming in Prolog or LISP and the creation of knowledge-based systems using expert system software shells. Emphasis on the application of artificial intelligence techniques to business and industrial problems. Prerequisites: CIS 211.

#### CIS 331. PROGRAMMING LANGUAGES (3)

The syntax and semantics of programming languages. Topics include formal specification of syntax, declarations, binding, allocation, data structures and data types, control structures, control and data flow, the implementation and execution of programs, functional programming and imperative programming. Other possible topics include nonprocedural and logic programming, object-oriented programming, and program verification. Programming projects will provide experience in a number of languages. Prerequisite: CIS 321.

#### CIS 332. WEB PROGRAMMING I (3)

Many applications today are being converted to use the World Wide Web as the basis for the user's interaction with the application. Creating this new form of client-server computing requires new skills, languages, and support programs. This is the first of the two-course sequence on this topic, and focuses on client-side application programming (JavaScript, Java, VBScript, ActiveX). Prerequisite: CIS 211 or permission of instructor.

#### CIS 334. WEB PROGRAMMING II (3)

The second course in the Web programming sequence focuses on the server-side application programming in general and database in particular. Perl, server-side includes (SSIs), and proprietary software such as Oracle Web Application Server are studied. Prerequisite: CIS 332 or permission of the instructor.

#### CIS 386. COMPUTER ORGANIZATION (4)

Students will learn the principles of computer organization. Topics include the functional

components of a computer, memory organization, auxiliary storage, system interconnection, digital logic, assembly language programming, and evolution and future trends of computer organization. Weekly laboratories will illustrate computer organization concepts and techniques. Prerequisites: CIS 234.

### **CIS 388. DATABASE MANAGEMENT SYSTEMS (4)**

The design and maintenance of a computerized database management system. Includes all operations such as design, creation, searching, sorting, and editing that must be performed on both sequential and direct access files and sets of files. Examines advantages and disadvantages of tree, network, and relational data structures. Coverage of query languages, data dictionaries, and security and privacy considerations. Prerequisite: CIS 211.

### **CIS 390. OPERATING SYSTEMS (3)**

An introduction to the fundamentals of operating systems across computing platforms. Topics include process and storage management, protection and security, and distributed systems. Format principles are complemented with surveys of contemporary operating systems (including UNIX). Prerequisite: CIS 386.

### **CIS 392. COOPERATIVE WORK EXPERIENCE IN PROGRAMMING (1-6)**

A supervised work experience in which the student is placed for temporary employment with a local firm or government agency which has a cooperative agreement with the Division of Natural Sciences and Mathematics. Prerequisites: 3.0 GPA in the major; 2.3 GPA overall; full-time student who has completed at least 64 hours; and the recommendation of the student's advisor.

### **CIS 417. ADVANCED APPLICATIONS PROGRAMMING (3)**

A comprehensive programming course devoted to designing and implementing complete computerized software systems. Emphasis on developing large, complex software systems. Prerequisite: CIS 321.

### **CIS 418. MANAGEMENT INFORMATION SYSTEMS (3)**

An integration of the material covered in previous programming and systems courses. An examination of modern management information systems in a business setting. Topics include structured decision systems, decision support systems, information systems acquisition and management, database management systems, and the role of information processing systems in business decisions. Prerequisite: CIS 287.

### **CIS 419. DATA COMMUNICATIONS AND LOCAL AREA NETWORKS (3)**

An introduction to the role of data communications and local area networks in a business environment. Management of data communications systems and local area networks. Special topics to be covered include fundamental communications concepts, data communication hardware, network configurations, protocols and software, microcomputers and communications, and local area networks (LANs). Prerequisite: CIS 234.

### **CIS 421. COMPUTER ARCHITECTURE (3)**

Topics include information representation, tags, check bits, floating-point arithmetic, instruction sets, RISC vs CISC, ALU design, bit slicing, microprogrammed control, microinstruction type, microprogram optimization, cache memories, interleaved memories, communication methods, bus control and timing, input-output, programmed I/O, interrupts and DMA, parallel and vector processors, pipelines, shared vs distributed memory, interconnection networks, and hypercube computers. Prerequisite: CIS 385.

### **CIS 423. SERVER OPERATING SYSTEMS (3)**

Students will learn the principles of current server operating systems. The role of servers in enterprise networks will be considered. Students will study the design of client/server networks, the services provided by server computers, and the management of services. Attention will be given to proper system administration, security, and error recovery. Various operating systems

configuration options will be studied including Internet access, network protocols, and fault-tolerant options. Prerequisites: CIS 234 or CIS 390 or permission of instructor.

#### CIS 431. ALGORITHMS AND DATA STRUCTURES (3)

The topics of this course include basic tools for algorithm analysis including asymptotic notations, lower and upper bounds, and recursive relations; advanced data structures; analysis of recursive algorithms; analysis of algorithms for searching and sorting; analysis of graph and geometric algorithms; analysis of numerical algorithms; study of NP-complete problems; and study of parallel algorithms. Prerequisite: CIS 321.

#### CIS 434. INTER/INTRA NETWORKING (3)

Students will learn how to design, build, and troubleshoot an inter/intra network. Topics to be considered include LAN/WAN interconnectivity issues, physical transmission options, integration of voice and data, transport methods, and network protocol architectures. Prerequisites: CIS 234 and CIS 332 or permission of instructor.

#### CIS 441. AUTOMATA THEORY (3)

Topics include regular grammars, finite automata, context-free grammars, pushdown automata, and Turing machines; introductory treatment of computable and non-computable functions; and halting problems. Prerequisite: CIS 331.

#### CIS 481. TOPICS IN COMPUTER AND INFORMATION SCIENCES (3)

Examines various topics in different aspects of computer and information sciences. Such topics may include microprocessor systems, performance analysis of computer systems, computer graphics, compiler design, parallel and distributed processing, computer security, expert systems, natural language processing, neural networks, or intelligent tutoring systems. Prerequisite: Consent of instructor.

#### CIS 485. DIRECTED RESEARCH IN COMPUTER AND INFORMATION SCIENCES (3)

Design and development of a project in some area of computer and information sciences. Each student enrolling in this course must select a computer and information sciences faculty advisor who will be responsible for approving, guiding, and evaluating the project. Prerequisite: Consent of instructor.

#### CIS 486. NETWORK SECURITY (4)

Students will learn how to protect computer networks from internal and external digital threats by studying security concepts and techniques. Topics include encryption technology, security administration, workgroup and shared-level security, domain security and trust relationships, fault tolerance, virus protection, firewalls, proxies, filters, and network and data link security. Weekly hands-on laboratories will investigate computer network security techniques. Prerequisite: CIS 423.

#### CIS 487. SOFTWARE ENGINEERING (3)

Introduces the Unified Modeling Language (UML) for object-oriented analysis and design, object-oriented life cycle models, testing, maintenance, and performance measurement of object-oriented software projects. Students will work in teams to develop object-oriented software projects. Prerequisite: CIS 321.

## CRIMINAL JUSTICE

#### CRIM 200. INTRODUCTION TO CRIMINAL JUSTICE (3)

This course will provide an overview of the criminal justice system, its history, its philosophical development, and its contemporary configurations. Issues of law enforcement, adjudication, and corrections will be covered. Students will examine career opportunities and requirements in the criminal justice field and will become familiar with local, state, and national criminal justice systems.

### CRIM 310. PRINCIPLES OF CRIMINAL LAW (3)

This course explores the nature, origins, and general principles of criminal law. It examines pertinent aspects of federal and state criminal law, and concentrates on specific issues of interest to law enforcement including an examination of procedural law. Recent court decisions will be discussed and selected criminal offenses will be analyzed.

### CRIM 311. CRIMINAL JUSTICE PROCEDURES (3)

Constitutional analysis of criminal procedure that focuses primarily on the Fourth, Fifth, and Sixth Amendments; the right to be free from unreasonable search and seizure, the privilege against self-incrimination, and the right to counsel. The course examines the need to protect the public and enhance law enforcement efficiency and the need to protect individual defendants from abuse at the hands of the state.

### CRIM 320. CRIMINAL COURT SYSTEM (3)

This course will focus on the jurisdiction policies and procedures of criminal courts in the administration of justice. The role of the courts is pursued in determining social policy as it relates to criminology. Also, a complete survey of the criminal court system from local to state to federal jurisdiction will be taken.

## CRIMINAL JUSTICE (COMMUNITY AND TECHNICAL COLLEGE)

### CJST 200. INTRODUCTION TO THE CRIMINAL JUSTICE SYSTEM (3)

Survey of law enforcement, the role, history, development, and constitutional aspects of law enforcement and public safety. A review of agencies involved in the process of the administration of criminal justice.

### CJST 210. INTRODUCTION TO FORENSIC SCIENCE (3)

An introduction to the utilization of scientific methods and instrumentation in the analysis of physical evidence at crime scenes and in the laboratory. Topics include fingerprints, cast and mold development, blood and other body fluids, hair, fibers, tool marks, paint, glass and plastic fragments, ballistics, and specialized instrumentation.

### CJST 220. CRIMINAL INVESTIGATION (3)

This course will examine the fundamental principles and theories of criminal investigation, with concentration on the following subjects: report writing; sources of information: witnesses, complainants, victims, observation, physical description, identification, interviews, interrogation, modus operandi, informants, surveillance, undercover techniques, crime scene search, collection, preservation, and processing of physical evidence; raids, arrest, search, seizure, and case preparation.

### CJST 230. PRINCIPLES OF CRIMINAL LAW AND PROCEDURES (3)

Substantive law of crimes is reviewed thoroughly from its Anglo-American common law base and compared with the West Virginia Crimes Code. Also, the course will cover the laws of arrest and search as affected by decisions of the United States Supreme Court, various state appellate courts, and the West Virginia Supreme Court.

### CJST 240. POLICE ORGANIZATION AND MANAGEMENT (3)

This course will examine the basic principles of organization and management. Federal, state, county, and municipal law enforcement agencies will be reviewed and compared with government and business administration. The important areas of leadership, planning, discipline, and contemporary police management problems will be analyzed.

### CJST 253. STATE POLICE ACADEMY BASIC TRAINING (3)

Designed for law enforcement personnel who have completed the State Police Academy basic training course. Upon presentation of the certificate of completion from the State Police Academy and after earning 15 credit hours at Shepherd, the student is eligible for 3 credit hours

(without grade) in CJST 253 to be used as the health elective in the A.A.S. criminal justice degree. See the criminal justice academic advisor for more information.

### **CJST 260. THE CORRECTIONAL SYSTEM (3)**

This course will cover the court and jury system, probation and parole, and correctional institutions including jails and the non-institutional treatment of offenders. Also legal procedures which affect the liberties of inmates, clients, and correctional staff within the institutional and community settings will be covered.

### **CJST 270. FIELD EXPERIENCE IN CRIMINAL JUSTICE (1-3)**

Students will be placed in a variety of criminal justice systems including the police, courts, probation and parole, regional jails, and state penitentiaries in order to give students hands-on experience.

## **CULINARY ARTS**

### **CART 115. SAFETY AND SANITATION IN THE FOOD SERVICE INDUSTRY (3)**

A course designed to emphasize the responsibility that the food service manager and the food service worker have to the public in providing safe and sanitary food to the consumer.

### **CART 200. CULINARY LANGUAGE (2)**

This course provides instruction in foreign language terminology used for menus and recipes from countries other than the United States. The student will learn the terminology of the most frequently used words in the food service industry. Menu writing and translation as well as correct pronunciation will be required as part of vocabulary acquisition.

### **CART 207. SURVEY OF FOOD SERVICES (3)**

Organization and basic operation of various types of quality food services including fundamentals of preparation and meal planning, food production, and service standards and techniques.

### **CART 209. FOOD PRODUCTION SYSTEMS (3)**

Recognition and achievement of quality in development of systematic relationships between systems, time, labor, equipment, and costs in quantity food production. Quality procurement policies for food, beverages, and related items.

### **CART 250. EXTERNSHIP IN FOOD SERVICE (3)**

An application of the theoretical concepts gained in the classroom in a restaurant situation. Each student will be assigned to a restaurant for a minimum of 200 hours. May be repeated once.

### **CART 290. SERVICE INDUSTRY EXTERNSHIP (FOODS) (3)**

To apply theoretical concepts gained in the classroom, each student will be assigned to a restaurant for a minimum of 200 hours of supervisory or managerial experience along with a number of meetings with the professor. Prerequisite: Junior or senior standing or permission.

## **ECONOMICS**

### **ECON 123. CONTEMPORARY ECONOMICS (3)**

Introductory survey of modern economic issues. Economic theory is employed in the analysis of inflation, unemployment, pollution, regulation, market structure, and related topics. Economic institutions such as corporations, banking, and government are also studied. Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.

### **ECON 205. PRINCIPLES OF MACROECONOMICS (3)**

Introduction to fundamental economic concepts including production possibilities and economic growth, market supply and demand analysis, money, banking, and government fiscal and monetary policies. Emphasis is placed upon fluctuations in national income, employment, and the price level.

**ECON 206. PRINCIPLES OF MICROECONOMICS (3)**

Continuation of ECON 205. Topics include extension of supply and demand analysis, production costs and revenue analysis of firms under perfect and imperfect competition, resource market, and international trade and finance. Selected economic problems. Prerequisite: ECON 205.

**ECON 292. INTERNSHIP IN ECONOMICS (1-6)**

Practical experience in local, regional, and Washington Gateway organizations such as government offices, social actions groups, and private corporations/companies. Interns learn how to translate classroom theory and methods into professional skills and opportunities. Usually offered every term. May be repeated. Prerequisite: Must have sophomore class standing with minimum 2.5 overall GPA, approval of academic department, and placement by Career Center.

**ECON 301. INTERMEDIATE MICROECONOMICS (3)**

An intermediate-level study of the behavior of consumers, firms, and resource owners. Input and output markets under perfect and imperfect competition. General equilibrium analysis and welfare economics. Prerequisite: ECON 206.

**ECON 302. INTERMEDIATE MACROECONOMICS (3)**

An examination of classical, Keynesian, and monetarist theories and their application for determining the level of and changes in national income, aggregate employment, and the average price level. Prerequisite: ECON 206.

**ECON 303. MANAGERIAL ECONOMICS (3)**

The application of economic tools and techniques to management decision-making. Topics include demand, cost, and profit analysis; price and output decisions; budgeting and benefit/cost analysis; and the impact of government regulation. Case studies. Prerequisites: ECON 206 and BADM 224.

**ECON 304. HISTORY OF ECONOMIC THOUGHT (3)**

A study of the development of economic thought from mercantilism to the present day. Contributions of great economists to economic analysis and their bearing on current theory and policy issues are emphasized. Prerequisite: ECON 206 or ECON 123.

**ECON 305. MONEY AND BANKING (3)**

Within a theoretical structure, an examination concerning the changing nature and dynamics of money and credit structures of American depository institutions, including their regulatory bodies. Application to monetary policies and their implications for stabilization and growth objectives. Prerequisite: ECON 206 or ECON 123.

**ECON 310. PUBLIC FINANCE (3)**

A study of government expenditures, sources and methods of taxation, economic effects of expenditures and taxes, and government debt policies. Prerequisite: ECON 206.

**ECON 320. URBAN ECONOMICS (3)**

An examination of the interactions between the spatial environment and economic activity. Focus is placed on the spatial location of economic activity, the pattern of land use within an area, and urban problems. Prerequisite: ECON 206.

**ECON 325. INTERNATIONAL FINANCE (3)**

Basic theories, problems, and policies of international finance, such as the international currency system, national income determination in an open economy, exchange rates theory, and balance of payments. Prerequisite: ECON 206.

**ECON 326. INTERNATIONAL TRADE (3)**

The study of basic theories, problems, and policies of international trade, such as comparative

advantage, tariff and non-tariff, protection, barriers to trade, and factor mobility. Prerequisite: ECON 206.

### **ECON 330. ECONOMICS OF DEVELOPING COUNTRIES (3)**

An examination of the prospects and problems of developing countries. The major theories of economic growth are explored. Issues and policies related to urbanization, agriculture, education, the environment, poverty, and international trade are analyzed from the perspective of the developing countries. Prerequisite: ECON 206 or permission of instructor.

### **ECON 350. GOVERNMENT AND BUSINESS (3)**

Government control of business in the United States will be examined, including the roles and responsibilities of business firms and governments in a market economy; industrial concentration; antitrust; multinational corporations; regulated industries; government promotion of business; consumer protection; and environmental regulations. Prerequisite: ECON 206 or ECON 123.

### **ECON 392. COOPERATIVE EDUCATION IN ECONOMICS (3-9)**

May be repeated for credit, but not in the same term; topic must be different. Usually offered every term. Prerequisite: Must have junior level standing with minimum 2.5 overall GPA, approval of academic department, and placement by the Career Center. Maximum of three credit hours may be used as economic elective credit by majors only.

### **ECON 450. SEMINAR IN ECONOMICS (3)**

Summation of the major themes of economic theory along with application of certain of these theories within a policy context. Prerequisites or corequisites: ECON 301 and ECON 302.

## **EDUCATION**

### **EDUC 150. SEMINAR IN EDUCATION (1)**

Introduces the prospective teacher to the study of education. Focuses on the self as learner, the nature of education, and the practical issues in the work of teaching. Based on readings and field experiences the student will develop a philosophical, historical, and practical understanding of learning and teaching. Also introduces the student to the characteristics of the teacher education program's philosophy and theme: Teacher as Reflective Problem Solver. Prerequisite to all education courses.

### **EDUC 200. FOUNDATIONS OF AMERICAN EDUCATION (3)**

An examination of the relationship between the school as a social institution and the larger society. This is accomplished through a variety of ways, but mainly through a combination of philosophical, historical, and problem-oriented inquiry into that relationship. The assumption is that a teacher who has developed an understanding of the vital relationships between school and society is in a position to see his or her professional roles beyond the narrow confines of the classroom, and, out of such a perspective, will emerge a more sensitive and effective teacher. Prerequisite: EDUC 150 or department chair approval.

### **EDUC 204. HISTORY AND PHILOSOPHY OF THE MIDDLE SCHOOL (3)**

A historical and philosophical analysis of American educational thought and practice relevant to the development of the middle school. The themes of the course will center on the historical development of an educational structure and curriculum having as its focus the psychological, educational, and social needs of the emerging adolescent. The course will also examine the philosophical foundation of the middle school.

### **EDUC 209. TECHNOLOGY FOR TEACHING I (3)**

An introductory course on the use of computer-based technology for teaching in grades K-12. Projects will be designed for teacher education students to fulfill the required computer competence component of the teacher education program.

**EDUC 300. HUMAN GROWTH AND DEVELOPMENT (3)**

A course required of nursing students exploring the physical, social, and cognitive variables which affect the quality of professional interaction with the developing person.

**EDUC 304. PSYCHOLOGY OF THE MIDDLE SCHOOL CHILD (3)**

Designed to acquaint the in-service and pre-service teacher with the unique physiological, cognitive, and psychological nature of the middle school child. Using this information base, implications for appropriate teacher behavior, consistent with relevant learning and motivation theory, are examined. Permission of instructor.

**EDUC 305. AUDIO-VISUAL TECHNOLOGY (3)**

A foundation course designed to acquaint the student with the use of audio-visual technology for instruction and communication. The course content will consist of: 1) the historical, philosophical, and psychological reasons for the use of audio-visual technology; 2) production and use of audio-visual technology; and 3) students will obtain experience operating various audio-visual and related computer hardware and software.

**EDUC 306. K-6 FIELD EXPERIENCE (2)**

An independently arranged field experience in a K-4 and grade range classroom.

**EDUC 307. 5-9 FIELD EXPERIENCE (2)**

An independently arranged field experience in a 5-9 and grade range classroom.

**EDUC 308. 9-12 FIELD EXPERIENCE (2)**

An independently arranged field experience in a 9-12 and grade range classroom.

**EDUC 310. EDUCATIONAL SOCIOLOGY (3)**

Designed to acquaint the student with education as a distinctly social phenomenon subject to objective scientific analysis. A sociological perspective on education requires that the student step back from that which he or she is examining, set aside his or her personal and cultural biases, and take a long, hard look at the phenomenon of education.

**EDUC 314. FOUNDATIONS OF EARLY EDUCATION (3)**

A course designed to acquaint students with historic background and modern-day trends relative to the aims and content of curriculum in early education.

**EDUC 319. MIDDLE SCHOOL CURRICULUM (3)**

A course designed to acquaint the student with the relationship between the unique needs of the transescent child and the schooling process. Included are such variables as the nature of knowledge, of the learner, and of the schooling process. Other variables included are related to content learning. Prerequisite: Admission to teacher education program.

**EDUC 320. THE SOCIAL AND PSYCHOLOGICAL CONDITIONS OF LEARNING (5)**

A reflective exploration of the knower (the learner), knowing (learning), the known (knowledge) and the contexts in which knowledge is constructed through teaching/learning. Includes a field component in a public school classroom. Prerequisites: EDUC 150 and EDUC 200.

**EDUC 334. INSTRUCTIONAL STRATEGIES IN EARLY EDUCATION (3)**

A course designed to provide students with instructional strategies and materials appropriate to instruction in a variety of early education environments.

**EDUC 336. CLINICAL EXPERIENCES IN EARLY EDUCATION (3)**

Clinical experiences necessary to the practical application of those approaches unique to early education. Prerequisites: FACS 304, EDUC 314, EDUC 334 or permission.

**EDUC 351. INTEGRATED PEDAGOGY I (9)**

Integrated Pedagogy I is the first semester of a two semester course/experience designed to promote the development of teachers who have a philosophical and principled understanding and commitment to an integrated curriculum and the practical strategies to implement such an educational program for children. This course experience occurs in the context of Shepherd College's teacher education program which is founded on the philosophy and theme Teacher as Reflective Problem Solver. Integrated Pedagogy I has both a classroom and field component. Prerequisite: Admission to teacher education program.

**EDUC 352. INTEGRATED PEDAGOGY II (9)**

Integrated Pedagogy II is the second semester of a two-semester sequence designed to promote the development of teachers who have a philosophical and principled understanding and commitment to an integrated curriculum and the practical strategies to implement such an educational program for children. This course experience occurs in the context of Shepherd College's teacher education program which is founded on the philosophy and theme Teacher as Reflective Problem Solver. Integrated Pedagogy II has both a classroom and field component. Prerequisite: EDUC 351.

**EDUC 360. SURVEY OF EXCEPTIONAL CHILDREN (3)**

A course to familiarize the student with the nature, etiology, specific characteristics, and needs of the exceptional child. The course is designed to meet basic certification requirements in those states that require a minimum of three hours of course work in special education in order to be certified. It is equally relevant to early education, elementary education, secondary education, therapeutic recreation, psychology, and nursing.

**EDUC 370. CREATING LEARNING ENVIRONMENTS (4)**

This is a secondary methods course designed to implement educational theory into practice. The purpose is to provide knowledge and appreciation of variables affecting positive and negative learning environments, including but not limited to the following: goals and stated expectations, decisions regarding appropriate content, planning methods, understanding of developmental characteristics of students, consideration of learning styles and various ability levels, controls of classroom climate, selection of teaching strategies, selection and creation of instructional resources, adaptation to changes in the school programs and school personnel, collaboration with colleagues, programming for exceptional children, multicultural education and issues of equity, and meaningfulness in assessment. Field experience: Three hours per week in an assigned field placement. Prerequisite: Admission to teacher education program.

**EDUC 390. EXPERIENTIAL LEARNING (1-6)**

The student is involved with various service learning activities. Related to the student's professional development, this experience can include peer tutoring, volunteerism, laboratory assistant, independent research, and community program. Proposal must be approved by specialization coordinator. Course is offered on a pass/fail basis. Offered every term. Minimum 10 hours of contact for each credit is required. Student can take 1 to 3 credit hours per semester not to exceed 6 credits total.

**EDUC 392. COOPERATIVE EDUCATION (1-9)**

Cooperative education allows students to acquire practical experience in education settings beyond the boundaries of the campus. May be repeated for credit, but not in same semester. Offered every semester. Prerequisite: Minimum 2.3 overall GPA, 2.5 in major, approval of Department of Education, and placement by Cooperative Education Office.

**EDUC 400. STUDENT TEACHING SEMINAR (3)**

A weekly seminar taken concurrently with student teaching. Promotes the reflective analysis of the practice of teaching in grades K-6, 5-9, K-12, 5-12, 9-12.

**EDUC 407. GENERAL METHODS: MIDDLE SCHOOL (3)**

Taken concurrently with Directed Teaching as part of the professional block. It is taught

intensively during the first 11 to 12 days of each semester and continues through weekly seminars that are part of the Directed Teaching experience. Prerequisite: Fulfillment of all requirements for student teaching.

#### **EDUC 418. A COMPARATIVE HISTORY OF CHILDHOOD AND ADOLESCENCE SINCE 1500 (3)**

The course will provide an intellectual appreciation of the evolution of concepts of childhood and adolescence in a historical context and serve to help students understand children and adolescents in contemporary American society.

#### **EDUC 420. SPECIAL METHODS OF TEACHING MATHEMATICS (3)**

A special methods course for secondary education majors in mathematics. An in-depth study of special methods, curriculum, problems, and techniques involved in mathematics instruction. Prerequisite: EDUC 370. Corequisite: EDUC 435.

#### **EDUC 421. SPECIAL METHODS OF TEACHING ENGLISH (3)**

Current approaches in the teaching of English in the secondary school. Topics include basic teaching procedures and approaches in composition, literature, and grammar; the secondary reading program; critical examination of recent texts; educational media in the field of language arts instruction; materials of instruction. This course is not taught every semester. Students should check in advance with department chair. Prerequisite: EDUC 370. Corequisite: EDUC 435.

#### **EDUC 422. SPECIAL METHODS OF TEACHING SOCIAL STUDIES (3)**

Designed to acquaint the student with the philosophy, aims, and methods of teaching social studies in the secondary school. This course is not taught every semester. Students should check in advance with department chair. Prerequisite: EDUC 370. Corequisite: EDUC 435.

#### **EDUC 423. SPECIAL METHODS OF TEACHING SCIENCE (3)**

Reflective problem solving in science and science teaching is the major thrust of this course. The student is introduced to or reacquainted with the goals and objectives of modern science education, including scientific literacy for all students. The constructivist approach to learning science is emphasized as students investigate, consider, select, develop, employ, and evaluate a variety of instructional methods, resources, and assessment techniques. Educational technologies currently impacting science teaching/learning are considered, as are the issues of safety and classroom and laboratory management. This course is not taught every semester. Students should check in advance with the natural sciences teaching specializations coordinator. Prerequisite: EDUC 370. Corequisite: EDUC 435.

#### **EDUC 426. SPECIAL METHODS OF TEACHING MUSIC (3)**

A course designed to aid the participants in constructing a working philosophy of music in the schools in which all music activities and courses can be viewed in proper perspective. In addition, emphasis is placed on the refining of known skills as applicable to the means by which music objectives can be realized; developing and administering the band and choral programs along with instrumental and vocal techniques; conducting such specialized music courses as music theory, history, and introduction to music; and examining appropriate teaching materials. This course is not taught every semester. Students should check in advance with department chair. Prerequisite: EDUC 370. Corequisite: EDUC 435.

#### **EDUC 427. SPECIAL METHODS FOR TEACHING ART (3)**

This course is designed to provide a synthesis of course work in art, education, and art education for advanced art education majors. Students will explore the nature of teaching visual art in contemporary K-12 grade classrooms including, for example, methods to teach art studio, art criticism, aesthetics, and art history; devices to evaluate student progress; inclusive instructional practices; and instruction in the use of technology. In addition, students will construct and critique a complete nine-month art curriculum useful for teaching in a West Virginia or nearby local public school system. This course is not taught every semester. Students should check in

advance with department chair. Prerequisites: EDUC 370, ART 104, ART 170, ARED 245, ARED 365, and ART 403. Corequisite: EDUC 435.

#### EDUC 428. SPECIAL METHODS OF TEACHING FAMILY AND CONSUMER SCIENCES (4)

Current approaches to solving problems directly related to teaching: writing a philosophy, determining objectives, planning teaching strategies, and evaluating learning. This course is not taught every semester. Students should check in advance with department chair. Prerequisite: EDUC 370. Corequisite: EDUC 435.

#### EDUC 429. ADULT EDUCATION MODELS AND PRACTICES (2)

A study of the philosophy, promotion, organization, and strategies of working with out-of-school groups. Each student will participate in teaching an adult group. This course is not taught every semester. Students should check in advance with department chair.

#### EDUC 430. SPECIAL METHODS OF TEACHING BUSINESS EDUCATION (3)

A methods course designed to prepare the student for the teaching of business education at the secondary level. Topics include curriculum, lesson plans, objectives, exceptionality, technology, research, methodology, and techniques involved in business education instruction. The course is not taught every semester; students should check in advance with the business department head. The course is taken concurrently with EDUC 435; a minimum of 20 hours credit from courses required in the teaching field. Prerequisite: Minimum of 20 hours from courses required in teaching field and EDUC 370. Corequisite: EDUC 435.

#### EDUC 431. SPECIAL METHODS OF TEACHING PHYSICAL EDUCATION IN THE ELEMENTARY AND SECONDARY SCHOOLS (3)

Designed to enable the student to apply the fundamental principles of learning and teaching in the area of physical education at the elementary and secondary levels. A field experience in an area public school is required. This course is offered every fall and must be taken prior to student teaching. Prerequisites: Minimum of 20 hours credit from courses required in teaching field. Prerequisite: EDUC 370. Corequisite: EDUC 435.

#### EDUC 432. SPECIAL METHODS OF TEACHING HEALTH EDUCATION IN THE ELEMENTARY AND SECONDARY SCHOOLS (3)

Designed to develop effective and current instructional strategies for elementary and secondary health education teachers. This course must be taken prior to student teaching. Prerequisites: Minimum of 20 hours credit from courses required in teaching field, HLTH 103, HLTH 360, HLTH 370. Prerequisite: EDUC 370. Corequisite: EDUC 435.

#### EDUC 435. SPECIAL METHODS PRACTICUM (2)

This is a field experience course for all students seeking certification in a secondary teacher education program. A weekly college seminar accompanies the field work. Students will arrange their field work schedules so that they may meet their individual professional development needs. A minimum of 30 hours in a public school is required. Seminar content and field tasks are coordinated with special methods course instructors. This course must be taken concurrently with a special methods course. Prerequisites: Admission to teacher education program and EDUC 370 or EDUC 370.

#### EDUC 442. READING AND LANGUAGE ARTS (3)

Methods, materials, and techniques for teaching reading and language arts in the classroom.

#### EDUC 443. READING IN CONTENT AREAS (3)

A course concentrating on reading instruction in the content areas of the curriculum. Attention given to the identification of the special reading abilities required in subject matter areas. Prerequisite: Permission of instructor.

**EDUC 450. STUDENT TEACHING, ELEMENTARY SCHOOL GRADES K-6 (9)**

Provides an in-depth clinical experience in the public school, at the appropriate grade level, under the supervision of experienced personnel. Prerequisite: Fulfillment of all requirements for student teaching.

**EDUC 453. STUDENT TEACHING, GRADES 5-9 (9)**

Provides an in-depth clinical experience in the public school, at the appropriate grade level, under the supervision of experienced personnel. The extended immersion in the program of the middle school provides the student opportunities to test knowledge of the subject areas chosen and to gain competence in the teaching skills. Prerequisite: Fulfillment of West Virginia requirements for a teaching license.

**EDUC 455. STUDENT TEACHING, GRADES K-12 (9)**

Limited to those students in the K-12 programs of physical education, art, and music. Gives insight, through study and observation, and provides skill through planning and teaching to enable the graduates to handle successfully all types of teaching situations in secondary, middle, and elementary schools. Prerequisite: Fulfillment of West Virginia requirements for a teaching license.

**EDUC 456. STUDENT TEACHING, GRADES 5-12 (9)**

Gives insight, through study and observation, and provides skill through planning and teaching to enable the graduates to handle successfully all types of teaching situations in middle and secondary schools. Prerequisite: Fulfillment of West Virginia requirements for a teaching license.

**EDUC 457. STUDENT TEACHING, GRADES 9-12 (9)**

Gives insight, through study and observation, and provides skill through planning and teaching to enable the graduates to handle successfully all types of teaching situations in secondary schools. Prerequisite: Fulfillment of West Virginia requirements for a teaching license.

**EDUC 460. SENIOR CAPSTONE SEMINAR (3)**

Reflectively reviews the professional education experience through readings, study, and the development of a senior project in collaboration with one or more of the following: advisor, seminar instructor, other faculty, classroom teacher, or other appropriately designated person(s). Taken during the final semester after student teaching. Prerequisites: EDUC 400 and EDUC 450.

## **EMERGENCY MEDICAL SERVICES**

**EMPS 100. FIRST RESPONDER (3)**

This is an introductory course to emergency medical care for individuals who in the course of their normal duties are likely to be the first individual on the scene of a medical emergency. The course will cover what should be done until the ambulance unit arrives and will include CPR, an overview of EMS systems, basic airway management, patient assessment, circulation and automatic defibrillation, illness and injury prevention, childbirth and children, and scene operation.

**EMSP 101. INTRODUCTION TO EMS (2)**

A survey course designed to acquaint the student with emergency medical services roles and responsibilities, well being of the EMS provider, illness and injury prevention, medical-legal issues, ethics, therapeutic communications, and life span development.

**EMSP 102. EMT- BASIC (5)**

The entry level course for patient care within the EMS system. Topics include a review of basic cardiac life support, the human body, patient assessment, medical emergencies, behavioral emergencies, obstetrical and gynecological emergencies, trauma, infants and children, and ambulance operations. NOTE: EMSP 102 is required for the student to complete the National Standard Curriculum for the EMT-Basic and be eligible to take the National Registry examination for EMT-Basic.

### EMSP 103. EMS OPERATIONS (2)

This course will include in-depth review of such topics as emergency vehicle operations, medical incident command, rescue awareness and operations, hazardous materials recognition and identification, and crime scene awareness.

### EMSP 104. EMS PRACTICUM I (1)

This course provides the opportunity to observe and apply the skills learned in EMS 102 in a supervised clinical setting including a local hospital emergency department, regional medical command center and on a field EMS unit. A minimum of 50 hours are required and will be scheduled by the student on an individual basis through the EMS coordinator. Corequisite or prerequisite: EMSP 102.

### EMSP 105. EMT-INTERMEDIATE I (6)

This is the first course in the EMT-Intermediate sequence and subject material covered will include the U.S. Department of Transportation's National Standard Curriculum for EMT-Intermediate. This course is not a part of the EMS associate's degree program and will not substitute for any of the EMS courses required in the degree program. Prerequisite: EMSP 102. Corequisite: EMSP 106. Permission of the EMS coordinator is required to register for this course.

### EMSP 106. EMT-I PRACTICUM I (1)

This is the second course in the EMT-Intermediate sequence. Students will participate in 50 hours of clinical experience in the hospital setting or on a field EMS unit. Clinical experience will correlate with subject matter covered in EMSP 105. Prerequisite: EMSP 102. Corequisite: EMSP 105. Permission of the EMS coordinator is required to register for this course.

### EMSP 107. EMT-INTERMEDIATE II (6)

This is the third course in the EMT-Intermediate sequence and subject material covered will include the U.S. Department of Transportation's National Standard Curriculum for EMT-Intermediate. This course is not a part of the EMS associate's degree program and will not substitute for any of the EMS courses required in the degree program. Prerequisites: EMSP 102, 105, and 106. Corequisite: EMSP 108. Permission of the EMS coordinator is required to register for this course.

### EMSP 108. EMT-I PRACTICUM II (1)

This is the fourth and final course in the EMT-Intermediate sequence. Students will participate in 50 hours of clinical experience in the hospital setting or on a field EMS unit. Clinical experience will correlate with subject matter covered in EMSP 107. Prerequisites: EMSP 102, 105, and 106. Corequisite: EMSP 107. Permission of the EMS coordinator is required to register for this course.

### EMSP 110. FUNDAMENTALS OF EMS MANAGEMENT (3)

This is an entry-level course for students interested in the field of EMS management. The focus of the course will be to provide a global overview of EMS systems design and development, administration and finance of EMS operations, risk management and quality improvement programs, and personnel development and management.

### EMSP 111. EMS MANAGEMENT INTERNSHIP I (2)

In this course the student will work as an apprentice in an EMS setting under the supervision of EMS management professionals. The focus of this course will be learning about EMS systems design and development at the local, regional, and state levels.

### EMSP 201. AIRWAY MANAGEMENT AND ADVANCED PATIENT ASSESSMENT (2)

In this course students will learn the proper approach to patient assessment and advanced airway management skills for both medical and trauma patients.

**EMSP 202. PATHOPHYSIOLOGY AND SHOCK TRAUMA RESUSCITATION (2)**

General principles of pathophysiology, treatment of shock, and recognition and management of specific traumatic emergencies will be the focus of this course.

**EMSP 203. PREHOSPITAL PHARMACOLOGY (2)**

General topics such as pharmacokinetics, pharmacodynamics, drug calculations, and drug administration will be topics of discussion and will be followed by an in-depth study of specific medications used in the pre-hospital setting

**EMSP 204. EMS PRACTICUM II (2)**

This course provides the opportunity to observe and apply the skills learned in EMSP 201 and 203 in a supervised clinical setting including a local hospital emergency department, respiratory therapy department and operating room, and on a field EMS unit. A minimum of 100 clinical hours are required and will be scheduled by the student on an individual basis through the EMS coordinator. Corequisites or prerequisites: EMSP 201 and 203.

**EMSP 205. MEDICAL EMERGENCIES I (4)**

This course will review the pathophysiology, assessment, and management of medical patients with pulmonary and cardiovascular emergencies.

**EMSP 206. EMS PRACTICUM III (2)**

This course provides the opportunity to observe and apply the skills learned in EMSP 202 and 205 in a supervised clinical setting including a local hospital emergency department, respiratory therapy, cardiac service, cardiac care unit, and on a field EMS unit. A minimum of 100 clinical hours are required and will be scheduled by the student on an individual basis through the EMS coordinator. Corequisite or prerequisite: EMSP 202 and 205.

**EMSP 207. MEDICAL EMERGENCIES II (4)**

This course will review the pathophysiology, assessment, and management of medical patients with neurological and endocrinological emergencies, allergies and anaphylaxis, gastroenterological, urological, toxicological, hematological, and environmental emergencies, infectious and communicable diseases, and behavioral, gynecological, and obstetrical emergencies.

**EMSP 208. SPECIAL PATIENTS AND SITUATIONS (2)**

This course will take an in-depth look at the approach to patients with special needs such as neonatal, pediatric, and geriatric patients, patients with mental or physical impairments, or patients with high technology medical devices in the out-of-hospital setting.

**EMSP 209. EMS PRACTICUM IV (2)**

This course provides the opportunity to observe and apply the skills learned in EMSP 207 and 208 in a supervised clinical setting including a local hospital emergency department, pediatric unit, obstetrical unit, psychiatric unit, and on a field EMS unit. A minimum of 100 clinical hours are required and will be scheduled by the student on an individual basis through the EMS coordinator. Corequisite or prerequisite: EMSP 207 and 208.

**EMSP 210. ASSESSMENT BASED MANAGEMENT (1)**

This course will serve as the cumulative review and remedial application of what the student has learned in EMSP 201-209. The course will focus on providing summative evaluation of the student's performance in simulated situations or scenarios. Successful completion of this course is required to obtain recommendation to sit for the National Registry Examination for EMT-Paramedic. NOTE: EMSP 101-104, 201-210, and BIOL 225-228 are required for the student to complete the National Standard curriculum for EMT-Paramedic and be eligible to sit for the National Registry examination for EMT-Paramedic.

**EMSP 211. FIELD RESEARCH AND EVALUATION (2)**

This course will encourage the student to analytically evaluate EMS operations and pre-hospital

medical care and to become an advocate for change within the EMS system. A focus of this course will be on conducting and evaluating a group and an independent field research project as well as presentation of research results in both written and oral formats.

#### **EMSP 212. EMS BUDGETS AND FISCAL POLICY (3)**

This course will focus on budget development, oversight, and management of fiscal resources in EMS organizations. The advantages and limitations of a variety of EMS funding mechanisms including subscription or membership programs, tax-based systems, and fee-for-service systems will be reviewed. Specific concentration will be provided on billing and collection procedures in fee-for-service EMS systems. Fiscal policy and investment strategies for developing long-term fiscal stability will be explored.

#### **EMSP 213. EMS MANAGEMENT INTERNSHIP II (2)**

In this course the student will continue to work as an apprentice in an EMS setting under the supervision of EMS management professionals. The focus of this course will be EMS budget and fiscal operations in municipal, county, or regional based EMS organization under fire service, third service, and private EMS models.

#### **EMSP 214. EMS RESOURCES MANAGEMENT (3)**

This course will explore the management of human and physical resources in an EMS organization. Human resource management will be reviewed from the paid and volunteer EMS system perspective with a focus on the special considerations of human resources management in an organization with both paid and volunteer personnel. The physical resource management of this course will review fleet, facilities, and inventory management strategies.

#### **EMSP 215. EMS MANAGEMENT INTERNSHIP III (2)**

In this course the student will continue to work as an apprentice in an EMS setting under the supervision of EMS management professionals. The focus of this course will be management of human and physical resources in municipal, county, or regional based EMS organizations under fire service, third service, and private EMS models.

#### **EMSP 290. SPECIAL TOPICS (1-4)**

Elective intended to enhance or enrich a student's education beyond the regular curriculum. Contact EMS coordinator for additional information.

## **ENGINEERING**

Engineering courses are open only to students admitted to the Engineering Transfer Program, unless permission is obtained from the director of engineering.

#### **ENGR 101. ENGINEERING I (3)**

Topics include developing engineering design and problem-solving techniques including group projects, basic engineering design concepts; basic computer-aided design (CAD) including practical engineering drawings; time management including learning and study skills; professional and ethical responsibilities; technical library and Internet research; word processing; and spreadsheet programming.

#### **ENGR 102. ENGINEERING II (3)**

Topics include computer-aided engineering (CAE); introduction to computing environment; basic computing concept and structured programming processes including algorithms, pseudo code, editing and debugging through the use of C++ and FORTRAN programming languages; introduction to numerical analysis; graphical representations; and mathematical packages. Prerequisite: MATH 207.

#### **ENGR 221. INTRODUCTION TO ELECTRICAL ENGINEERING (3)**

Topics include electrical engineering units, circuit elements, circuit laws, measurement principles,

mesh and node equations, network theorems, energy storage elements, RC and RL circuits, unstep response, and second order circuits. Prerequisites: ENGR 102 and MATH 207.

### ENGR 222. ELECTRICAL ENGINEERING LABORATORY (1)

A laboratory course in electrical engineering, 3 hours per week, to be taken simultaneously with ENGR 221.

### ENGR 224. ELECTRICAL CIRCUITS (3)

Introduction to network analysis including sinusoidal (AC) steady state, average and RMS values, phasors, polyphase systems, complex frequency, network frequency response, two port networks, and transformers, Fourier methods, and Laplace Transforms. Prerequisites: ENGR 221 and MATH 208.

### ENGR 225 ELECTRICAL CIRCUITS LABORATORY (1)

A laboratory course in electrical circuits, 3 hours per week, to be taken simultaneously with ENGR 224.

### ENGR 241. ENGINEERING STATICS (3)

Examines engineering applications of equilibrium of forces, vector operations, couple and moment of force, resultants (2 and 3 dimensions), center of gravity and center of pressure, static friction, freebody diagrams, equilibrium trusses and frames. Prerequisite: ENGR 101. Corequisite: MATH 207.

### ENGR 242. ENGINEERING DYNAMICS (3)

A course examining Newtonian dynamics of particles and rigid bodies: engineering applications of equations of motion, work and energy, conservative forces, impulse and momentum, impulsive forces, acceleration in several coordinate systems, and relative motion. Prerequisites: ENGR 241, MATH 207, and PHYS 221.

### ENGR 243. ENGINEERING MECHANICS OF MATERIALS (3)

Analysis of stress, deformation, and failure of solid bodies under the action of forces including internal force resultants, stress, strain, Mohr's Circle, mechanical properties of engineering materials, generalized Hooke's Law, analysis of axial, bending and buckling loads, and combinations. Prerequisites: ENGR 241 and MATH 207.

### ENGR 301. ENGINEERING THERMODYNAMICS (3)

Basic thermodynamic concepts, properties of pure substances, First and Second Law analysis of systems and control volumes are examined. Prerequisites: MATH 207 and PHYS 221.

### ENGR 305. DIGITAL LOGIC DESIGN (4)

This course will focus on design of Boolean logic and finite state machines; standard SSI, MSI and LSI parts; drawing standards and dependency notation; implementation with different logic families mainly TTL and MOS sticks; synchronous system design, ALU, memory, tri-state, and open-collector busses; functional blocks in microprocessors; discussion of a typical example of a microcomputer; and simple I/O, switches, and LED displays. Prerequisites: ENGR 102 and MATH 254 or CIS 211.

### ENGR 306. ANALOG ELECTRONICS AND LAB (4)

Semiconductors, p-n junction diodes, theory and application, bipolar junction transistor operation biasing and BJT as an amplifier, JFETs and MOSFETs theory operation biasing applications, class A and C power amplifier, small-signal, low-frequency analysis and design (Laboratory to reinforce the application of various devices.) Prerequisite: ENGR 224.

### ENGR 307. DIGITAL ELECTRONICS DESIGN AND LAB (4)

The design of combinational and sequential digital circuits, logic families, Boolean algebra, Karnaugh maps, VEM, MSI circuitry, state machines, ASM, timing diagrams, and CAD design. A laboratory design project is required. Prerequisite: ENGR 221.

### ENGR 320. ELECTROMAGNETIC FIELDS I (3)

Vector analysis, including gradient, divergence, divergence theorem curl, and Stokes's Theorem. A study of static electric field including Coulomb's Law, Gauss's Law, electric potential, convection and conduction current, electric energy density, Poisson's and Laplace's equations, resistance, capacitance. Prerequisites: ENGR 221, PHYS 222, MATH 309.

### ENGR 326. LINEAR SYSTEMS (3)

Signal types, linearity, causality, linear differential and difference equations, zero state response, zero input response, discrete time, continuous time, convolution, correlation, Laplace transforms, transfer functions, pole-zero placement, initial value theorem, final value theorem, Z-transforms, sampling, frequency domain analysis. Prerequisites: ENGR 224, MATH 310.

### ENGR 351. INTRODUCTION TO FLUID MECHANICS (3)

This course will examine fluid statics, laminar and turbulent flow of compressible and incompressible fluids, flow measurements, open channel flow, and kinetics of fluids. Prerequisites: MATH 310 and ENGR 242.

## ENGLISH

### ENGL 101. WRITTEN ENGLISH I (3)

A course designed to enhance critical thinking, reading, and writing skills through exposure to a diverse range of great ideas, both Eastern and Western. Students will also study of the major types of expository writing: writing compositions developed by prescribed rhetorical modes. Prerequisite: Satisfactory score on the English Placement or satisfactory grade in Introduction to Critical Composition, ACFN 010. Prerequisite to all other English courses.

### ENGL 102. WRITTEN ENGLISH II (3)

A continuation of ENGL 101, with an introduction to literary types reflecting a diversity of genres (poetry, fiction, and drama) and writers; extensive practice in various kinds of expository and critical writing, with emphasis on the research paper. Prerequisite: English ENGL 101 or satisfactory score on English Placement. Prerequisite to all English courses numbered 200 or above.

### ENGL 202. BACKGROUNDS OF LITERATURE (3)

A study of all forms of children's literature, with emphasis on laying foundations for lifelong enjoyment of literature, giving instruction and practice in storytelling, and establishing criteria and resources for book selection. Only candidates for the degree of bachelor of arts in elementary education and students with a minor or teaching field in library science may enroll in this course. Students in secondary education may, with the permission of the department chair, take this course as an elective. Prerequisite: ENGL 102.

### ENGL 203. TEACHING READING AND ADOLESCENT LITERATURE (3)

Students will be exposed to reading pedagogy and the methods of teaching reading, as well as the adolescent literary canon and the reading and oral interpretation of adolescent literature. Prerequisite: ENGL 102.

### ENGL 204. SURVEY OF AMERICAN LITERATURE (3)

A critical study of representative writers and works from the Colonial period to the present, reflecting a broad range of literary and philosophic ideas and the cultural and ethnic diversity of the American experience. Prerequisite: ENGL 102.

### ENGL 208. SURVEY OF WORLD LITERATURE I (3)

A survey of world literature, including Ancient, Medieval, Renaissance, and chronologically comparable non-Western works. Prerequisite: ENGL 102.

### ENGL 209. SURVEY OF WORLD LITERATURE II (3)

A survey of world literature, including Neoclassical, Romantic, Realistic, Modern, and chronologically comparable non-Western works. Prerequisites: ENGL 102.

### ENGL 220. APPALACHIAN CULTURE (3)

Appalachian Culture will introduce students to a wide variety of creative expression from those states which constitute southern Appalachia, particularly West Virginia, Virginia, Tennessee, North Carolina, and Kentucky. Students will study cultural stereotypes about Appalachia, unique historical and cultural forces at work in Appalachia, and the rich expression of creativity in Appalachia (including oral and written literatures, visual arts and crafts, and singing and songwriting). Prerequisite: ENGL 102 and permission of instructor.

### ENGL 280. INTRODUCTION TO TECHNICAL COMMUNICATION (3)

This course will introduce students to the field of technical communication through instruction in how to prepare and communicate information. It will also develop proficiency in electronic communication such as e-mail and the World Wide Web. Prerequisites: ENGL 102 and either C 102 or BSed 250, or permission of instructor.

### ENGL 300. GREEK MYTHOLOGY (3)

An in-depth study of Greek mythology through discussion of significant Greek and Roman texts read in translation, with emphasis on the historical, cultural, and literary influence that Greek myths have exerted on the thinking and writing of the Western world. Prerequisites: ENGL 208 or ENGL 209.

### ENGL 302. THE BIBLE AS LITERATURE (3)

A study of the various types of literature found in the Bible. Prerequisites: ENGL 208.

### ENGL 310. SURVEY OF BRITISH LITERATURE I (3)

A survey of the major works of poetry and prose of the British literature from *Beowulf* through the Renaissance. Prerequisites: ENGL 208.

### ENGL 311. SURVEY OF BRITISH LITERATURE II (3)

A survey of major works of poetry and prose of the British literature from the Neoclassical through the Modern periods. Prerequisites: ENGL 208.

### ENGL 315. MEDIEVAL LITERATURE (3)

A study of representative works from the major medieval genres—epic, romance, dreamvision, and drama—with special emphasis on medieval English literature, excluding Chaucer. Prerequisites: ENGL 208.

### ENGL 316. MEDIEVAL DRAMA (3)

An in-depth study of medieval drama, from its beginnings in 10th-century liturgical dramatizations through the late 15th century, with an emphasis on Middle English Corpus Christi cycle, saints' plays, and morality play. Prerequisite: ENGL 208.

### ENGL 320. RENAISSANCE PROSE AND POETRY (3)

A study of the major non-dramatic poetry and prose of the English Renaissance, including works by Spenser, More, Browne, Donne, and Herbert. Prerequisites: ENGL 208.

### ENGL 321. RENAISSANCE DRAMA (3)

A study of the major playwrights of the English Renaissance, excluding Shakespeare. Prerequisites: ENGL 208.

### ENGL 322. HAMLET IN CONTEXT (3)

A rereading of the received text of *Hamlet* in terms of the theatrical, historical, and cultural contexts of Shakespeare's tragic vision. The class will consider the popular tradition of Elizabethan and Jacobean revenge drama, ranging from Kyd's *The Spanish Tragedy* to Webster's *The White Devil* and the apparent source materials of the Hamlet story; the political background and the crisis of authority in Tudor England; four centuries of Hamlet criticism, including

romantic, idealistic, Freudian, formalist, feminist, pacifist, and complementarian interpretations of the play. Prerequisite: ENGL 208.

### ENGL 330. RESTORATION AND EIGHTEENTH-CENTURY BRITISH LITERATURE (3)

A study of the intellectual ideas and the principal writers of the period, including Dryden, Behn, Pope, Swift, Johnson, Wollstonecraft, Gray, Burns, and Austen. Prerequisites: ENGL 208.

### ENGL 331. RESTORATION AND EIGHTEENTH-CENTURY DRAMA (3)

A survey of the major works of British drama (both tragedy and comedy) from the Restoration through the 18th century. Prerequisites: ENGL 208.

### ENGL 332. BRITISH NOVEL (3)

A study of the development of the British novel through the works of major novelists of the 18th and 19th centuries. Prerequisites: ENGL 208.

### ENGL 333. SATIRE (3)

A study of Enlightenment satire in a classical context, including works by Aristophanes, Horace, Juvenal, Cervantes, Rabelais, Swift, Pope, Gay, Lennox, and Austen. Prerequisite: ENGL 208 and 209.

### ENGL 340. BRITISH ROMANTIC LITERATURE (3)

A study of the major writers of British Romanticism, with emphasis on the social and intellectual background from which they evolved. Prerequisites: ENGL 208.

### ENGL 341. NINETEENTH-CENTURY BRITISH LITERATURE (1837-1900) (3)

A study of representative selections from the major poets and prose writers of the period. The thought, content, and literary form of the selections are emphasized. Attention is given to their reflection of the chief cultural and intellectual currents of the political and social history of the era. Prerequisites: ENGL 208.

### ENGL 346. AMERICAN FICTION (3)

Primarily a study of the American novel to the First World War, although key shorter works also may be included. The fiction of major 19th- and early 20th-century writers is discussed in its artistic, intellectual, and social significance. Prerequisite: ENGL 204.

### ENGL 347. AMERICAN POETRY (3)

An in-depth critical study of selected American poets from the 19th and early 20th centuries with primary emphasis on the artistic achievements of each figure and on the position each holds as representative of the major literary movements in American poetry from the Romantic through the Modernist periods. Prerequisite: ENGL 204.

### ENGL 355. AMERICAN ETHNIC LITERATURE (3)

A study of the literatures of various American ethnic groups, including African American, Native American, Hispanic United States, Asian American, and Appalachian literatures. Emphasis will be placed on the oral tradition of the ethnic groups and the development of written literatures, with primary emphasis on twentieth-century written texts. Prerequisite: ENGL 204.

### ENGL 357. CONTEMPORARY AMERICAN POETRY (3)

A study of themes in contemporary American Poetry from World War II to present. Discussion will include the influence of postmodernism, postcolonialism, and emergence of ethnic literatures in contemporary American Poetry. The course will also explore experimental poetry.

### ENGL 360. LITERATURE AND THE SEXES (3)

A study of American, British, and Continental literature by and about women, with particular emphasis on the relationship between the sexes. The course includes works by Lanier, Austen, Wollstonecraft, Brontë, Chopin, Dickinson, Ibsen, Shaw, and others. Gynocritical, deconstructive,

and traditional critical approaches to the works are investigated. Prerequisites: ENGL 204 or 208 or 209.

### ENGL 361. SHORT STORY (3)

A careful reading and discussion of selected short stories with the dual purpose of developing students' critical appreciation and acquainting them with the nature and development of the short story form. Prerequisite: ENGL 204 or ENGL 208 or ENGL 209.

### ENGL 362. MODERN NOVEL (3)

A study of representative American, British, and European novelists of the 20th century, designed to acquaint the students with the themes, techniques, and artistic problems of the modern novel and the relationship of the latter to the basic issues and concerns of modern people. Prerequisite: ENGL 204 or ENGL 208 or ENGL 209.

### ENGL 363. MODERN DRAMATIC LITERATURE (3)

A study of the drama from Ibsen to the present day. Representative plays from Europe, Britain, and America will be read and critically interpreted. The cultural and intellectual background of modern American theater will be studied. Prerequisites: ENGL 204 or ENGL 208 or ENGL 209.

### ENGL 364. LITERARY CRITICISM (3)

A historical survey of major critical trends from the Classical period through the 20th century and a study of contemporary critical theories through practical application to specific literary works. Prerequisites: ENGL 204 or ENGL 310 or ENGL 311.

### ENGL 365. CONTEMPORARY LITERATURE (3)

A study of world literature from the 1950s to the present. Representative texts from Europe, Britain, North America, Latin America, and Africa will be read. Emphasis will be placed on postmodernism, postcolonialism, and the emergence of ethnic literatures. Prerequisites: ENGL 204 or ENGL 208 or ENGL 209.

### ENGL 366. WOMEN IN THE ARTS AND LITERATURE (3)

A course dealing with issues of creativity and the creative process as explored in the literary, visual, and performing art of women. Class discussion proceeds from a core of literary works dealing with women and creativity: works by Austen, Rossetti, D. Wordsworth, Barrett Browning, Dickinson, Gilman, Rich, Plath, Sexton, Woolf, Drabble, Dinesen, Zelda and Scott Fitzgerald, and Walker. Prerequisites: ENGL 204 or ENGL 208 or ENGL 209.

### ENGL 370. MODERN GRAMMAR (3)

A linguistic survey of the English language, its history and structure, the course utilizes traditional grammar, structural linguistics, and transformational grammar as a basis for a comprehensive understanding of how language works—both written and oral. Prerequisite: ENGL 102.

### ENGL 372. ADVANCED COMPOSITION (3)

A study of techniques and extensive practice in informative, persuasive, journalistic, and contemplative writing. Prerequisite: ENGL 102.

### ENGL 373. CREATIVE WRITING (3)

An applied study of basic stylistic and structural techniques characteristic of various forms of imaginative writing, analyzed in selected models, with particular emphasis given to a guided, constructive criticism of student writing submitted for class discussion. Consent of the instructor necessary for admission. Prerequisites: ENGL 204 or ENGL 208 or ENGL 209.

### ENGL 375. HISTORY OF THE ENGLISH LANGUAGE (3)

A diachronic study of the English language and its linguistic heritage. Prerequisites: ENGL 310 or ENGL 311.

**ENGL 377. PEER TUTORING AND COMPOSITION THEORY (3)**

The course will provide a solid theoretical foundation in composition in order to enable students to improve their own writing as well as that of their peers. Students will receive practice in reading, commenting on, and assessing written work from many disciplines. Prerequisites: ENGL 102.

**ENGL 380. ADVANCED TECHNICAL COMMUNICATION (3)**

Building on what students learned in Introduction to Technical Communication, this course will provide intensive practice in technical communication through scenarios and workshops. Students will work collaboratively on one long project that involves research. Prerequisite: ENGL 280 or permission of instructor.

**ENGL 382. TECHNICAL EDITING (3)**

This course provides an in-depth study of the types of technical editing found in professional settings and will include exercises in copy editing, collaborative projects, and preparing documents for a specified audience. Prerequisite: ENGL 280 or permission of instructor.

**ENGL 405. SEMINAR IN LITERATURE I (3)**

A seminar course focusing on a literary genre, movement, period, or figure chosen by the instructor and approved by the department chair. The student is expected to attend regular meetings of the seminar, participate in open discussions, and present a series of short written or oral reports related to the topic chosen for study. In addition, the student is expected to submit a major documented paper which individually investigates some aspect of the subject matter of the course as a whole. In addition to ENGL 405, students also may take ENGL 406 and/or ENGL 407 and receive three hours credit for each course successfully completed. No one of this group of courses is a prerequisite for the other two, but permission of the instructor is necessary for admission. Prerequisites: ENGL 204 or ENGL 208 or ENGL 209.

**ENGL 406. SEMINAR IN LITERATURE II (3)**

A seminar course with the same format and requirements as ENGL 405 but focusing on a different genre, movement, period, or figure chosen by the instructor and approved by the department chair. In addition to ENGL 406, students also may take ENGL 405 and/or ENGL 407 and receive three hours credit for each course successfully completed. No one of this group of courses is a prerequisite for the other two, but permission of the instructor is necessary for admission. Prerequisites: ENGL 204 or ENGL 208 or ENGL 209.

**ENGL 407. SEMINAR IN LITERATURE III (3)**

A seminar course with the same format and requirements as ENGL 405 but focusing on a different genre, movement, period, or figure chosen by the instructor and approved by the department chair. In addition to ENGL 407, students also may take ENGL 405 and/or ENGL 406 and receive three hours credit for each course successfully completed. No one of this group of courses is a prerequisite for the other two, but permission of the instructor is necessary for admission. Prerequisites: ENGL 204 or ENGL 208 or ENGL 209.

**ENGL 418. STUDIES IN CHAUCER AND MILTON (3)**

A study of the language and art and a detailed critical reading of the masterworks of two major figures in English literature: Chaucer's *The Canterbury Tales* and Milton's *Paradise Lost*. Prerequisite: ENGL 208, ENGL 209, or ENGL 310.

**ENGL 421. SHAKESPEARE (3)**

A study of selected plays and the sonnets. Minor emphasis on Shakespeare's biography and Elizabethan background. Prerequisite: ENGL 208 or ENGL 209 or ENGL 310.

**ENGL 430. BRITISH LITERATURE AND THE PROMINENCE OF PLACE (3)**

A cornerstone experience for any English major, minor, or individual interested in British culture

or literature, the course is designed to focus on British writers whose work or renown is framed largely by the prominence of place. A travel experience to Britain will accompany the course. Prerequisite: ENGL 102 and permission of instructor.

#### ENGL 431. BRITISH LITERATURE TRAVEL PRACTICUM (3)

The course is designed to accompany British Literature and the Prominence of Place. Formal papers and a travel journal relating the literature course to the study tour practicum are required for the practicum. Prerequisite: ENGL 102 and permission of instructor.

#### ENGL 445. STUDIES IN AMERICAN LITERATURE (3)

An in-depth study of major American writers of the 19th century with primary emphasis on the artistic achievements of each figure. Some attention also is given to the development of characteristically American philosophical and social concepts as these are evidenced in the work being discussed. Prerequisite: ENGL 204.

#### ENGL 460. PRACTICUM IN APPALACHIAN CULTURE I (1)

The student serves as assistant and/or researcher for the Appalachian Studies Festival or he/she will further explore a research or practicum project which grows out of the Appalachian Culture course. Prerequisite: Permission of instructor.

#### ENGL 461. PRACTICUM IN APPALACHIAN CULTURE II (2)

The student serves in more significant role as assistant and/or researcher for the Appalachian Studies Festival or he/she will further explore, in a more profound and exhaustive degree than in the first practicum course, a research or practicum project associated with the Appalachian Studies Program. Prerequisite: Permission of instructor.

#### ENGL 476. PRACTICUM IN ENGLISH I (1)

The student serves as a writing tutor, proofreader for *The Picket*, apprentice in a freshman composition class, assistant in publicity and grant preparation for the Rude Mechanicals, or a part in other departmentally approved activity. This course may be repeated. Prerequisites: ENGL 370 or ENGL 372 or ENGL 377 and/or permission of instructor.

#### ENGL 480. LEAD TUTOR PRACTICUM (1)

The student assists the coordinator of the Writing Center in developing instructional materials and resources for Writing Center tutors. This course may be repeated. Prerequisites: ENGL 370 and permission of Writing Center director.

#### ENGL 481. STUDENT TUTOR PRACTICUM IN THE WRITING CENTER (1)

The student tutor, trained in composition theory and instruction, will serve as a tutor in the Writing Center. This course may be repeated. Prerequisites: ENGL 377 and permission of Writing Center director.

#### ENGL 483. INTERNSHIP IN TECHNICAL COMMUNICATION (3)

The apex of the minor degree, internships—sponsored locally or in the Washington, D.C., area—will allow students to enhance career preparation while fulfilling course requirements by completing an internship report and submitting a portfolio of work accomplished. Prerequisite: ENGL 280 or permission of instructor.

#### ENGL 484. PRACTICUM IN EDITING (1)

The student serves on the staff of *Sans Merci*, the Shepherd College literary magazine, as proofreader, copy editor, student editor, art director, or any other capacity approved by the *Sans Merci* faculty editors. Prerequisites: Permission of instructor. This course may be repeated.

#### ENGL 485. SENIOR CAPSTONE PRACTICUM (1)

Under the supervision of a faculty mentor of the student's choice, the student will propose a project, have the proposal approved by the mentor, and execute the project. Students should

concentrate on experiences they have had at Shepherd that would be useful in graduate school or career choices. Projects may include but are not limited to preparation and presentation of a conference paper; development of a substantial Web site; creation of a special workshop for other students in English; and participation in a dramatic performance. Students in ENGL 485 will also develop a portfolio of written work submitted in the major and take a major field achievement test. Prerequisite: Permission of department chair.

### ENGL 490. INDEPENDENT STUDY IN ENGLISH (3)

See Independent Study Program. All plans of study and syllabi must be approved by the Department of English. Prerequisite: Six hours of advanced work in English.

## ENVIRONMENTAL STUDIES

### ENVS 201. DIMENSIONS OF ENVIRONMENTAL SCIENCE I (3)

The physical nature of ecosystems and the environmental changes resulting from human impact of planet Earth will be explored in this course. An overview of the dynamic interaction with Earth's ecosystems will be emphasized, as well as the conflicts between our resource needs and our planet's ecological balance. This course provides the student with an awareness of the ecological balance in nature and our impact on earth's resources.

### ENVS 202. DIMENSIONS OF ENVIRONMENTAL SCIENCE II (3)

This course will explore the cultural dimensions of environmental change. Infrastructural changes such as demographic shifts and changing economic patterns of consumption as well as such topics as environmental justice, social impact strategies, and environmental epidemiology will be explored. This core course will provide a broad overview of people who both contribute to and react to a changing environmental landscape.

### ENVS 210. INTRODUCTION TO PARK ADMINISTRATION (3)

An introductory survey of the broad spectrum of the park administration field, including the philosophies of administration; the role of parks in modern society, and their impact upon surrounding areas; and the interrelationship of parks, tourism, natural and historic environments, and leisure time. Current developments in the field will be examined. This course is essential for all students with an interest in state and federal land management agencies.

### ENVS 301. WILDLIFE MANAGEMENT (3)

An overview of the history of human's relationship to wild animal life. Examines the principles underlying present scientific management practices; objectives of management of game, non-game, and threatened species; and the roles of individuals and private and governmental organizations related to wild animals. Prerequisites: One year of biology.

### ENVS 302. FORESTRY (3)

The historic and present day relationship of humans to plants on wild lands. Examines the scientific principles underlying proper use of forest and range lands; wood, forage, and water production; fire, pests, and forest management; recreation and wild land management; and the roles of individuals and private and governmental organizations related to wild lands. Prerequisites: One year of biology.

### ENVS 305. ENVIRONMENTAL LAW AND REGULATION (3)

A survey of the legal basis for environmental actions including federal legislation, the congressional rule-making process, and interpretations by the judicial system. Such areas as wildlife protection, water quality, air quality, environmental impact analysis, and land use management will be discussed. This course will provide the basis for understanding the specific legal issues associated with and management process of natural and cultural resources.

### ENVS 306. ENVIRONMENTAL POLICY (4)

This course will examine historical and contemporary governmental actions which shape the management of material and cultural resources. Changing philosophies, ideologies, budgets, and

leaders and their impacts upon both the public and private sector will be discussed. Students in environmental studies require a sound understanding of the nature and dynamics of environmental policy, with this course supporting the core of the environmental studies program.

### ENVS 307. INTRODUCTION TO HISTORIC PRESERVATION (3)

This course explores the investigation, recordation, analysis, and protection of cultural resources. Archeological sites, historical parks and places, archival collection, conservation and use of museum collections, architectural resources, and historical engineering works will be discussed in their relationship to protection schemes and environmental impact analysis. This core course will introduce students to the wide diversity of cultural resources relevant to environmental science.

### ENVS 308. PHYSICAL RESOURCE MANAGEMENT (3)

An introduction to the physical resources encompassed within environmental studies, including but not restricted to the resources of air, water, energy, minerals, and land use. Impact analysis of resource exploitation will be a major focus, examining how our need for these resources has modified our planet. This course will be critical in developing students' understanding and appreciation of the environmental impact resulting from resource exploitation.

### ENVS 309. REGIONAL GEOLOGY AND GEOMORPHOLOGY (3)

Introduction to Appalachian and Atlantic Coastal Plain geology, emphasizing the geologic history of the region, rock formations and their attendant fossil content, regional structural geology, and overall regional geomorphology. This course provides the student the opportunity to become acquainted with the geology, geomorphology, and geologic history of our region. The interplay between geology and the environment is significant and will be a major focus of the course.

### ENVS 310. PARK MANAGEMENT (3)

An investigation of the theories, practices, economics, and problems fundamental to the use of land and related resources for park purposes. Also, the organization, administration, and policy of different types of parks will be examined with emphasis upon program development, park management practices, and park operation plans. This course is essential for students interested in careers with state and federal land management agencies.

### ENVS 311. RESOURCE MANAGEMENT (3)

This course will focus on specific management techniques related to natural and cultural resource use and protection. Techniques related to ecosystem management including soils, waste, forests, range lands, wildlife, fisheries, coastal zones, air, toxic wastes, energy, and cultural sites will be discussed. A significant field component will be associated with this course, exposing students to real world applications and techniques in the field. This course supports electives in the resource management track.

### ENVS 319. LAND USE PLANNING (3)

An introduction to urban and regional planning with a focus on land use practices implemented to protect natural and cultural resources and to create livable communities. The course will include a history of planning during the 20th century as well as current policies and practices used by state and local governments to manage growth and stimulate activities in a resource-sensitive manner. An orientation to planning for students interested in resource management or park administration is provided by this course.

### ENVS 320. COMMUNICATION STRATEGIES IN ENVIRONMENTAL STUDIES (3)

An introduction of theories, practices, and history of communication and assessment focused on strategies for building environmental awareness, understanding, and responsible action. This course provides the student opportunities within the classroom and through laboratory and field experiences.

### ENVS 321. AMERICAN DECORATIVE ARTS (3)

This course will focus on the theoretical and historical foundations of understanding changes in

material culture. Special focus will be on changes in the design, lighting, furnishing, and uses of historic house interiors.

### ENVS 322. ENVIRONMENTAL HISTORY (3)

This course examines the development of the environmental field, emphasizing the persons and events that led the environmental movement of today.

### ENVS 325. ORAL HISTORY (3)

This course provides an introduction to the theory and methodology of oral history interviewing and ethnography. Students will learn the process of working with informants, recordation of oral history, transcription of interviews, and analysis of documentary material.

### ENVS 340. SUSTAINABLE AGRICULTURE AND LAB (4)

Factors such as decreasing soil fertility, soil erosion, pesticide resistance, increasing input costs, ground water contamination, and demand for chemical-free food and livestock have convinced the agriculture community of the need for new approaches to food and fiber production. This course examines basic design principles and examples of environmentally and economically sustainable agriculture systems. The course examines the application of ecological principles to sustainable management practices that biologically improve the fertility, organic matter content, and soil structure while minimizing or even eliminating the need for chemical applications for control of pathogens, insect pests, and weeds.

### ENVS 341. SUSTAINABLE ENERGY AND DEVELOPMENT (4)

Energy use and management are inextricably intertwined with many societal issues and numbers aspects of development. These issues and aspects include population growth, health impacts due to deterioration of air quality and effects of acidification on aquatic and terrestrial systems, economics, and national security concerns about availability of energy sources. This course introduces concepts of energy conservation and management and explores different energy sources for sustainable growth. Prerequisites: BIOL 101 and 102 or BIOL 208 and 209 or equivalent; ENVS 201 and 202.

### ENVS 342. LIMNOLOGY (4)

This course is a comprehensive introduction to the biological, chemical, and physical conditions affecting life in fresh water, particularly lakes, ponds, and reservoirs. Topics include the linkages between terrestrial and aquatic ecosystems, limnological techniques and equipment, productivity, pollution, fisheries management, and aquaculture. Major biological components such as the benthos, zooplankton, phytoplankton, macroinvertebrates, vertebrates, and aquatic vegetation will be examined.

### ENVS 343. AQUATIC ENTOMOLOGY (4)

This course introduces the taxonomy and ecology of the insects most commonly found in freshwater environments. Topics covered include insect diversity, behavioral, morphological, and physiological adaptations to specific habitats, population and community level ecology, and ecological relationships with physical and biotic environments. The laboratory will emphasize methods of sampling for aquatic invertebrates, recognition of all orders and major families of aquatic insects, and use of keys for identification of specific aquatic insects to lower taxonomic form.

### ENVS 344. ICHTHYOLOGY (4)

This is an introductory course dealing with the classification, ecology, behavior, and physiology of marine and freshwater fishes. The course deals with a variety of topics such as the diversity of fishes, form and function, reproduction and early ontogeny, quantitative fisheries resource management, behavior, fisheries ecology, and conservation. Laboratory topics include collection, ichthyological methods, aging, classification, and identification of worldwide fishes.

### ENVS 360. SEDIMENTOLOGY AND STRATIGRAPHY (3)

This course focuses on modern and ancient sedimentary environments, relating these environments

to the composition and genesis of sediments and sedimentary rocks. Principles of stratigraphy applied in the study of sedimentary rocks and stratigraphic theory are also considered. Three hours of lecture and two hours of lab per week. Prerequisites: GSCI 301; ENVS 308.

#### **ENVS 362. SOIL SCIENCE AND LAB (4)**

This course examines physical structure and composition of soil in conjunction with the dynamics of organisms including the microbes and macrobiota within the physical and chemical environment of the soil. The soil classification as well as the role of soils and their biota in food webs and ecosystem processes will be emphasized. The laboratory will provide field and lab techniques used in the study of soil ecology. Prerequisites: BIOL 101 and 102 or BIOL 208 and 209 or equivalent; ENVS 202 and 202, GSCI 301.

#### **ENVS 368. GEOLOGY OF NATIONAL PARKS (3)**

This course provides an overview of the geology, geomorphology, and historical development of selected national parks. Special emphasis will be placed on regional parks through field trips, visits with park officials and resource managers, and discussions of environmental problems singular to parks. An application of geological method and techniques will enhance student knowledge base, providing useful background for student interested in careers in resource management and park administration.

#### **ENVS 371. DOCUMENTATION OF HISTORIC PROPERTIES (3)**

Students will learn the methodology for locating, researching, and field recording historic cultural resources. The course will cover photographing, describing, and assessing sites, buildings, and structures and then researching their history as well as mapping and producing site plans, floor plans, and elevations. GIS systems will be introduced. Prerequisites: ENVS 307 and ANTH 370.

#### **ENVS 372. PRESERVATION TECHNOLOGY (3)**

Students will learn the history of architectural technology as applied to the construction of old building structures. The course will focus on components of historic buildings and structures, materials and fabric used in the past, as well as approved modern replacement components and compatibility with historic materials. Prerequisite: ENVS 307 or ANTH 370.

#### **ENVS 401. CONSERVATION ECOLOGY (4)**

An environmentally focused course emphasizing the varied aspects of the structure, function, and perpetuation of ecosystems. Societal impact on ecosystem structure will be considered through discussion and laboratory analysis, with the recognition of ecosystem disruption a major course focus. Representative topic areas include analysis of aquatic marine populations, types of ecosystems, population regulation, and energy flow. Prerequisites: BIOL 101 and 102 or BIOL 208 and 209 or equivalent; ENVS 201, ENVS 202.

#### **ENVS 422. STREAM ECOLOGY (4)**

This course examines the physical, chemical, and biological processes in stream ecosystems. The emphasis is to understand ecological structure and function and to assess anthropological and natural impacts on ecological function. Students in the course will conduct basic aquatic field sampling and laboratory analysis of physical, chemical, and biological components and test hypotheses related to environmental assessment.

#### **ENVS 440. SOLID WASTE/AIR QUALITY MANAGEMENT AND LAB (4)**

An applied course focusing on solid waste standards, regulations, and the nature of solid waste and the management, monitoring, and placement criteria employed in landfill siting. Air quality standards and regulations, pollutant composition, and monitoring of pollution sources will constitute the second aspect of the course. Non-point source pollutants for air and solid waste will be considered as well as the more traditional isolated point sources. The course will include site visits and presentations by experts in specific areas of solid waste and air quality management.

This course provides the student with an awareness of criteria employed in management of solid waste and air pollution, two critical areas of waste management.

#### **NVS 441. HYDROLOGY AND LAB (4)**

This course will focus on the dynamic nature of earth's surface and subsurface waters and the impact of human exploitation of these water resources. Techniques for monitoring and analyzing both surface and subsurface waters will be presented and practically applied as part of the laboratory component. Water quality standards and the criteria on which these standards are based will also be addressed in this course.

#### **NVS 450. ENVIRONMENTAL INTERNSHIP (6)**

A 400-hour internship with students placed within an environmental organization or industry in which they can apply their environmental background in a practical forum. Although flexible arrangements can be formulated for placement, it is preferred that the experience be completed during one summer or a semester after completion of the junior year. This will provide the student with practical experience within the field, enhancing his or her awareness of practical applications of environmental studies and will increase the student's employability.

#### **NVS 451. SENIOR RESEARCH SEMINAR (3)**

An independent research-based course designed as a capstone for seniors. Research on a selected topic will be synthesized as a senior thesis presentation. Students will refine written and oral communication skills as well as focus on the analytical skills gained from the program as a whole. This potentially serves as a mini-internship since data may be generated from the student's association with off-campus agencies.

#### **NVS 490. APPLIED REMOTE SENSING (4)**

An introductory course into the many varieties of remote sensing employed within the environmental sciences and applications of these techniques to field analysis. The course will focus on application of Geographic Information Systems (GIS) to the environmental sciences. These systems employ computers to store, retrieve, transform, and display spatial environmentally oriented data and have a myriad of applications in environmental studies. Remote sensing is typically employed in environmental analyses, ranging from land use to wetlands characterization, requiring the environmental studies student's awareness of these frequently applied techniques.

## **FAMILY AND CONSUMER SCIENCES**

#### **FCS 101. TEXTILES (3)**

A study of textile fibers, yarns, and construction techniques as a basis for selecting fabrics for clothing and the home.

#### **FCS 102. CLOTHING (4)**

A course designed to develop visual identity, to apply the principles and elements of design to enhance physical assets, and to make clothing purchase decisions using available consumer information. Basic clothing construction skills are applied to projects suitable for the student's needs.

#### **FCS 202. FOOD AND MEAL MANAGEMENT (4)**

A course designed to provide proficiency in the selection and preparation of basic foods and in the planning, preparing, and serving of nutritionally adequate meals.

#### **FCS 215. FASHION ANALYSIS (3)**

A study of fashion concepts and an exploration of identified fashion variables as they relate to the fashion industry.

#### **FCS 220. CLINICAL EXPERIENCES IN IN-HOME CHILD CARE (3)**

This course provides practical experience in a family provider in-home child care setting. The

student also attends a weekly seminar class and individual conference sessions with the instructor. Prerequisite: Permission of the instructor.

**FACS 225. GERIATRIC NURSING ASSISTANT (5)**

This course provides classroom and clinical training to care for the total patient. Course leads to certification as a geriatric nursing assistant upon passing the examination for West Virginia certification. Training is through James Rumsey Technical Institute.

**FACS 230. FIELD EXPERIENCE IN A NURSING HOME (2)**

Provides practical experience in working with patients in a licensed nursing home facility. A 100-hour supervised experience and attendance at a one hour weekly seminar are required.

**FACS 235. FIELD EXPERIENCE IN GERIATRIC CARE (2)**

Provides practical experience in working with elderly clients who live independently. A 100-hour supervised experience and attendance at a one hour weekly seminar are required.

**FACS 300. MARRIAGE RELATIONS (3)**

The process of marital adjustment, including the problems of dating, courtship, engagement, marriage, pregnancy, and aging.

**FACS 304. CHILD DEVELOPMENT (3)**

A study of the physical, emotional, social, and intellectual development of the individual from the prenatal period through the preschool years. A two-hour laboratory experience in the College nursery school is required.

**FACS 306. INTERIOR DESIGN (3)**

The use of basic art principles in creating beauty, expressiveness, and functionalism in interior environments.

**FACS 307. FAMILY AND CONSUMER SCIENCES MANAGEMENT (3)**

A study of the application of the principles of management to human and nonhuman resources in developing values and achieving individual and/or family goals.

**FACS 308. HOUSING (3)**

A course designed to help individuals plan for housing needs at all stages of the life cycle and at a variety of socioeconomic levels.

**FACS 310. PARENTS AND CHILDREN THROUGH THE LIFESPAN (3)**

A study of the relationships between parents and children from the prenatal period throughout the life cycle.

**FACS 315. CULTURAL INFLUENCES ON CLOTHING (3)**

An integrated approach to the study of the diverse meanings, symbolism, and significance which people attach to clothing and appearance.

**FACS 318. NUTRITION (3)**

A study of the functions, sources, and requirements of nutrients. Emphasis is placed on meeting the nutritional needs of individuals of all ages in a variety of situations.

**FACS 403. CONSUMER ECONOMICS (3)**

A study of the opportunities and responsibilities of the consumer in choosing goods and services for use in promoting individual and/or family goals. Emphasis is placed on financial planning throughout the life span.

**FACS 410. SPECIAL STUDIES (1-4)**

Opportunity is provided for students to do individual library or laboratory work on special topics.

problems in family and consumer sciences not included in present courses. Approval of instructor and advisor. This course may be repeated for credit.

#### ACS 430. SEMINAR (2)

Survey of recent research in the field of family and consumer sciences and selection of a problem for experimentation and evaluation. Senior standing.

#### ACS 450. SERVICE INDUSTRY EXTERNSHIP (3)

Application of theoretical concepts to practical experience in retail stores. Class meetings combined with a minimum of 200 hours of work experience are required.

### FIRE SCIENCE

#### FSCI 102. INTRODUCTION TO FIRE PREVENTION (3)

Survey of basic fire prevention practices including the history of fire prevention efforts, hazard recognition and abatement, legal aspects of code enforcement, public education program development, research and development of fire safety standards and administration of fire prevention efforts.

#### FSCI 110. INTRODUCTION TO FIRE SERVICE I (2)

Introduction to basic firefighting skills and techniques. Equivalent to Firefighter Section 1 training requirements of the West Virginia State Fire Commission.

#### FSCI 111. INTRODUCTION TO FIRE SERVICE II (4)

Continuation of FSCI 110 Introduction to Fire Service I. Equivalent to Firefighter Section II training requirements of the West Virginia State Fire Commission, for which 4 hours credit will be granted by Shepherd College. Prerequisite: FSCI 110.

#### FSCI 112. HAZARDOUS MATERIALS I AND II (3)

This course provides the basic skills required to properly identify hazardous materials and respond in a defensive fashion to contain or control releases of hazardous substances. This course satisfies the OSHA training requirements of 29 CFR 1910.120 for First Responder Awareness and Operations. Prerequisite: FSCI 110, 111.

#### FSCI 113. HAZARDOUS MATERIALS III (3)

This course provides the basic skills required to properly contain and control releases of hazardous materials. This course satisfies the OSHA training requirements of 29 CFR 1910.120 for Hazardous Materials Technician. Prerequisite: FSCI 112.

#### FSCI 114. FIRE OFFICER I (3)

This course is designed to provide the first-line officer the basic administrative and emergency operation skills needed for effective management of day-to-day department operations. Topics include fire department structure, leadership, legal aspects, safety, labor relations, budgeting and information management. Equivalent to Officer I training requirements of the West Virginia State Fire Commission.

#### FSCI 115. LIFE SAFETY CODE (3)

This course is designed to familiarize students with life safety standards established for various types of buildings. Topics covered include building use and occupancy, calculating occupant load, means of egress requirements, construction type, interior finish materials and fire protection system requirements.

#### FSCI 160. BLUEPRINT READING AND PLANS REVIEW (3)

This course enables students to read and understand blueprints used for the design and construction of buildings and fire protection/safety systems in various industrial applications. Also covered are plans review techniques and procedures utilized for verifying compliance with various codes and standards.

**FSCI 190. FIREGROUND STRATEGY AND TACTICS (3)**

This course examines the various tactics and strategies utilized during fireground operations. Emphasis is placed on incident command and control, safety, personnel and resource utilization, accountability and communications.

**FSCI 201. STRUCTURAL DESIGN AND BUILDING CODES (3)**

This course covers the fundamentals of structural design and the application of building code requirements to various types of buildings. Included is a review of building code requirements related to occupancy type, construction type, height and area limitations, fire protection system requirements and use of fire resistive materials.

**FSCI 202. FLAMMABLE AND EXPLOSIVE MATERIALS. (3)**

An introduction to the properties of flammable and explosive materials with emphasis on proper storage, handling and use. Also included are special considerations for mitigation of flammable and explosive material hazards under emergency conditions.

**FSCI 203. EMERGENCY AND RESCUE OPERATIONS (3)**

This course provides students a fundamental knowledge of operational procedures, personnel requirements, and specialized equipment and resources required for various emergency and rescue operations.

**FSCI 204. FIRE INSPECTION/CODE ENFORCEMENT (3)**

Provides a basic understanding of fire and life safety codes, principles and protocol for conducting fire inspections and reporting and abating identified deficiencies.

**FSCI 212. TOXIC, CORROSIVE, AND RADIOACTIVE MATERIALS (3)**

An introduction to the properties of toxic, corrosive, and radioactive materials with emphasis on proper storage, handling and use. Also included are special considerations for mitigation of toxic, corrosive, and radioactive material hazards under emergency conditions.

**FSCI 230. FIRE INVESTIGATION (3)**

This course provides the basic skills needed to conduct fire investigations. Topics covered include fire behavior, fire cause determination, fire scene investigation procedures and techniques, evidence collection and legal aspects. Upon completion of the course, students will be able to identify the origin and cause of a fire by using current fire investigation techniques and conduct a fire investigation in accordance with applicable legal requirements.

**FSCI 242. FIRE DEPARTMENT ADMINISTRATION (3)**

This course is designed to provide a fundamental knowledge of fire department administrative practices. Topics covered include personnel and resource management, financial management, legal aspects, organizational analysis, supervisory practice and strategic planning.

**FSCI 251. FIRE SERVICE OCCUPATIONAL SAFETY AND HEALTH (3)**

This course is designed to provide students with the skills necessary for development, implementation and evaluation of a comprehensive fire department occupational safety and health program. Topics include program administration, safety training and education, emergency operations safety,

**FSCI 270. FIREGROUND ORGANIZATIONAL COMMAND (3)**

This course provides an in-depth study of the model incident command system utilized in the management of large scale and complex emergency incidents. Included is a review of operations at natural and man made disasters requiring interagency and/or interjurisdictional coordination. Emphasis is placed on the relationship between the operational function and preparedness for an effective response, mitigation and recovery.

**FSCI 280. DIRECTED STUDY FIRE SCIENCE (1-6)**

This variable credit course allows students to pursue a Fire Science research project of particular

terest. Students registering for this course must have prior approval from the Program coordinator for Fire Science.

### SCI 292. INTERNSHIP IN FIRE SCIENCE (3)

practical experience in fire service organizations in which the student engages in on-the-site activities of a practical nature. Interns learn how to translate classroom theory and methods into professional skills. Activities are under the supervision of trained personnel. Application for the internship must be made to the program coordinator for fire science.

## FRENCH

### FREN 101. ELEMENTARY FRENCH I (3)

basic, culturally-oriented course in conversational French designed for beginning students who wish to develop skills in speaking, reading, writing, and comprehending French. Emphasis is placed on oral communication through dialogue and guided compositions. Audio and video tapes are extensively used.

### FREN 102. ELEMENTARY FRENCH II (3)

continuation of FREN 101, this course allows students to strengthen their comprehension and speaking proficiency in French by providing extensive practice in oral and written communication and self-expression and through discussions and oral presentations of readings in French and Canadian culture. Prerequisite: FREN 101.

### FREN 203. INTERMEDIATE FRENCH I (3)

review of the basic structures and phonetics of the French language studied through readings and discussions of French cultural and literary selections and enhanced through further oral communication practices, brief compositions, and oral reports. Prerequisites: FREN 101 and FREN 102.

### FREN 204. INTERMEDIATE FRENCH II (3)

continuation of FREN 203, this course is designed for more advanced students and allows them to strengthen their proficiency in French through advanced structural and oral exercises and several different kinds of writing assignments. Prerequisites: FREN 101, FREN 102, and FREN 203.

### FREN 303. SURVEY OF FRENCH LITERATURE (3)

the chief periods, authors, and works of French literature from the Serments de Strasbourg to 1900. Prerequisites: FREN 101 and FREN 102 and consent of instructor.

### FREN 304. SURVEY OF FRENCH LITERATURE (3)

continuation of FREN 303 with an emphasis on the major writers and literary movements from 1900 to the present day. Prerequisites: FREN 101 and FREN 102 and consent of instructor.

### FREN 401. ADVANCED GRAMMAR AND COMPOSITION (3)

An analytical study of the essential modern French forms of expression. Much emphasis is put on French syntax and its usage. The techniques of the best French writers are examined. Many themes on various topics will be written. Prerequisites: FREN 101, FREN 102, FREN 203, and FREN 204.

### FREN 402. APPLIED LINGUISTICS IN ORAL FRENCH (3)

The pronunciation of French vowels, diphthongs, consonants, words, and word groups. Selections of prose and poetry are read to perfect articulation and intonation. Prerequisites: FREN 101, FREN 102, FREN 203, and FREN 204.

### FREN 403. ADVANCED FRENCH CONVERSATION (3)

Organized practice in oral French. Intensive study of idiomatic expressions. Oral reports on everyday topics and on selected readings. Laboratory work. Prerequisites: FREN 101, FREN 102, FREN 203, and FREN 204.

### FREN 404. FRENCH CIVILIZATION AND CULTURE (3)

The formation of the French nationality examines the geography, architecture, literature, music, science, education, and political administration of France. Prerequisites: FREN 101 and FREN 102

### FREN 419. INDEPENDENT STUDY IN FRENCH (1-3)

See Independent Study Program. All plans of study and syllabi must be approved by the department

## GENERAL SCIENCE

### GSCI 101. ASTRONOMY I (4)

An introductory survey course in astronomy covering aspects of observational astronomy and the solar system. Historical developments, discoveries, and advances also will be discussed, compared, and contrasted. Three one-hour lectures and one two-hour lab per week.

### GSCI 102. ASTRONOMY II (4)

This course will cover aspects of astronomy such as stellar formation and evolution, galaxies, and cosmology. Recent discoveries with fundamental implications for modern astronomy also will be explored. Three one-hour lectures and one two-hour lab per week.

### GSCI 103. GENERAL PHYSICAL SCIENCE (4)

A survey course designed to explore the major physical phenomena in the natural sciences encompassing a study of motion, energy, electromagnetism, waves (light and sound), and atomic and nuclear physics. The course will meet in three one-hour lectures and one two-hour laboratory session

### GSCI 104. GENERAL PHYSICAL SCIENCE (4)

A survey course in physical science encompassing astronomy, meteorology, and geology. The principles and applications presented are characteristic of introductory courses in those separate areas. Scientific approaches to problem-solving and the interdependency of the areas of science are emphasized. This course will meet in three one-hour lectures and one two-hour laboratory session

### GSCI 300. HISTORY OF SCIENCE (3)

A general survey of the progress of science from earliest times to the present. The main scientific discoveries and theories are considered in their historical perspective.

### GSCI 301. PHYSICAL GEOLOGY (4)

A combined course in physical and historical geology dealing with the composition, structure, and history of planet Earth. Minerals, rocks, tectonic processes, and physical characteristics of the earth's surface will be emphasized in the physical component. Evolution, fossils, and the changing conditions and organisms throughout geologic time constitute the historical component. Three hours lecture and two hours lab per week.

### GSCI 302. GENERAL ASTRONOMY (4)

A descriptive course dealing with the physical nature of the planets and stars as seen through modern astronomy. The history of astronomical observation and development of modern principles along with properties of electromagnetic radiation and gravitation are included in the course. Three hours lecture and two hours lab per week.

### GSCI 303. METEOROLOGY (4)

A course dealing with the composition and structure of the atmosphere, the energy which drives it, and the physical processes involved in weather phenomena. The gathering and analysis of pertinent data are emphasized. Weather forecasting and climatology are also considered. Three hours lecture and two hours lab per week.

### GSCI 306. INTRODUCTION TO OCEANOGRAPHY (3)

A survey of oceanography at an introductory level, involving the properties of sea water and its movement; the chemistry, physics, and biology of the ocean; bathymetric features and submarine geology; and oceanographic instruments and methods of collecting data.

### SCI 307. OCEANOGRAPHY LAB (1)

Assessing the current health and potential resources of marine environments requires knowledge of basic chemistry, physics, and biology. Oceanography laboratory includes exercises of these components as they pertain to marine systems. The laboratory will include a field trip to the Atlantic shore. Prerequisites: BIOL 101 and 102 or BIOL 208 and 209 or equivalent; ENVS 201 and 202.

### SCI 312. HISTORICAL GEOLOGY (4)

A course dealing with the history of planet earth focusing on the interplay between plate tectonics and life. Plate boundary positions throughout geologic time will be covered as will life on the planet over the last 3.7 billion years. Evolution, fossils, and the changing conditions and organisms throughout geologic time will be emphasized. Three hours lecture and two hours lab per week.

### SCI 320. SPECIAL STUDIES IN GENERAL SCIENCE (1-3)

The study of special topics in general science of special interest to students and faculty, including those topics which may be the subjects of selected television series or other media presentations.

### SCI 350. NATURAL SCIENCE INTERPRETATION (3)

The study of the general principles of science interpretation for the lay public. Individual preparation of programs in various formats, e.g. nature walk, fireside talk, museum presentation expected. Extensive use is made of interpretive centers in the region.

## GENERAL STUDIES PHYSICAL EDUCATION (GSPE)

The general studies physical education program is part of the College-wide program of general studies. The GSPE program provides students with instruction and meaningful experiences in exercise, sport, wellness, and other lifestyle recreational activities.

All students are required to complete a minimum of two semester hours of GSPE. A course cannot be repeated or taken more than once. Those students who cannot satisfy this requirement due to a disability or other special condition should contact the chairperson of the Department of HPERS.

### General Studies Physical Education Activities Courses

- GSPE 100. Adapted PE I (may be repeated once)
- GSPE 104. Low Impact Aerobics
- GSPE 105. Aerobics
- GSPE 106. Step Aerobics
- GSPE 107. Water Aerobics
- GSPE 108. Body Sculpture I
- GSPE 109. Body Sculpture II
- GSPE 110. Step Sculpture
- GSPE 111. Aerobic Boxing/Coed
- GSPE 112. Jazz Dance
- GSPE 113. Jazzercise I
- GSPE 114. Jazzercise II
- GSPE 115. Modern Dance I
- GSPE 116. Modern Dance II
- GSPE 117. East Coast Swing Dance/Men
- GSPE 118. East Coast Swing Dance/Women
- GSPE 120. Archery
- GSPE 121. Billiards I
- GSPE 122. Billiards II
- GSPE 123. Bowling
- GSPE 125. Camping
- GSPE 126. Backpacking
- GSPE 127. Orienteering
- GSPE 128. Rock Climbing/Rappelling

GSPE 130.	Canoeing
GSPE 131.	Ice Skating
GSPE 132.	Ice Hockey
GSPE 133.	Cycling
GSPE 135.	Fencing
GSPE 136.	Golf
GSPE 137.	Hiking
GSPE 138.	Winter Hiking
GSPE 139.	Jogging
GSPE 140.	Horseback Riding I
GSPE 141.	Horseback Riding II
GSPE 143.	Marching Band
GSPE 144.	Korean Martial Arts
GSPE 145.	Karate I
GSPE 146.	Karate II
GSPE 147.	Self Defense for Women
GSPE 148.	Advanced Self Defense for Women
GSPE 149.	Self-Defense/Coed
GSPE 150.	Tennis/Badminton
GSPE 151.	Intermediate Tennis
GSPE 154.	Racquetball
GSPE 156.	Softball
GSPE 160.	Swimming
GSPE 161.	Fitness Swimming
GSPE 162.	Springboard Diving
GSPE 163.	Lifeguarding
GSPE 164.	Water Safety Instructor
GSPE 165.	Lifeguard Instructor
GSPE 170.	Volleyball
GSPE 171.	Advanced Volleyball
GSPE 173.	Walleyball
GSPE 175.	Weight Training for Men
GSPE 176.	Weight Training for Women
GSPE 179.	Wrestling
GSPE 180.	Snow Skiing I
GSPE 181.	Snow Skiing II
GSPE 182.	Snow Skiing III
GSPE 200.	Exploring Leisure (PE Majors Only)
GSPE 201.	Wellness/Fitness (PE Majors Only)
GSPE 205.	The Weight Loss Program
GSPE 210.	Fitness for Life
GSPE 250.	Adult Fitness

## GEOGRAPHY

### GEOG 100. WORLD REGIONS (3)

Looks in-depth at the major cultural regions of the world today, early cultural influences, and limitations imposed by the physical environment. Intended for the nonspecialist, the course is an introduction to college geography. It is especially recommended for students lacking prior preparation in geography.

### GEOG 101. PRINCIPLES OF WORLD GEOGRAPHY (3)

Fundamental course concentrates upon the study of humans in the different physical environments on earth. The rich diversity of human culture is outlined and emphasized. Students with a weak background in geography are strongly encouraged to take GEOG 100 before attempting this course.

**GEOG 201. PHYSICAL GEOGRAPHY (3)**

focuses on the Earth's place in the solar system; continental drift theory; global energy-flow patterns; the causes and characteristics of climate, including atmospheric pressure, air and water circulation, air masses, and storms; landforms; biogeography; and climatic-biotic soil-forming processes.

**GEOG 301. WORLD ECONOMIC GEOGRAPHY (3)**

involves the systems of livelihood of the industrial nations and of the Third World peasant economies. Forsaking the traditional commodities approach, this course employs the life-systems method. The geographical aspects of world food and population dynamics and of economic systems are investigated.

**GEOG 400. GEOGRAPHY OF LATIN AMERICA (3)**

focuses upon pre-colonial Latin America, the colonial impact, and modern Latin America, with its multitude of cultures, environments, and civilizations. The geographical context of current social, economic, and ecological problems will be viewed.

**GEOG 401. GEOGRAPHY OF EUROPE (3)**

Will explore the continent of Europe and its people, with emphasis upon the rich ethnic diversity of European people and their environment. The effect of environmental changes since the Pleistocene Age upon human patterns of livelihood is examined. Folk ethnographies and informal reports will familiarize students with local regions and with topics of individual interest.

**GEOG 402. GEOGRAPHY OF ANGLO-AMERICA (3)**

conventional approach to the study of the cultural and physiographic provinces of Canada and the United States. Special topics involved will include agglomeration, development of megalopolises, and matters of interregional circulation and interaction.

**GEOG 403. GEOGRAPHY OF THE FORMER UNION OF SOVIET SOCIALIST REPUBLICS (3)**

study of the diverse Russian people and their state-planned economy within a geographical context. Concentration will be upon the economic planning regions, agriculture, industry, and transportation development.

**GEOG 407. GEOGRAPHY OF ASIA (3)**

survey of Asia, excluding the Soviet Union, the East and South Asian cultures, and the Arab states. The physical environment, cultures, and nations' problems and potential are given balanced emphasis.

**GEOG 408. GEOGRAPHY OF AFRICA (3)**

survey of the more than 40 nations of Africa, their environment, cultures, problems, and prospects.

**GERMAN****GERM 101. ELEMENTARY GERMAN I (3)**

the study of fundamentals of the German language, with emphasis on pattern exercises, questions and answers, reading and discussion of stories and German dialogue; also pronunciation during classes and listening during required laboratory hours to CDs, videos, and tapes in German.

**GERM 102. ELEMENTARY GERMAN II (3)**

continuation of GERM 101. Discussion and conversation in German, also extensive study of singular and irregular verbs, idioms, and readings in German prose and poetry. Prerequisite: GERM 101.

**GERM 203. INTERMEDIATE GERMAN I (3)**

concentration of German grammar, verbs, and idioms, stressing pattern exercises in German,

conversation, reading, and discussion of German literature, culture, and history. Prerequisites: GERM 101 and GERM 102.

### GERM 204. INTERMEDIATE GERMAN (3)

A continuation of GERM 203. Grammar review and study of literature, supplemented with translations, reading, and conversation in German. Prerequisites: GERM 101, GERM 102, and GERM 203.

### GERM 419. INDEPENDENT STUDY IN GERMAN (1-3)

See Independent Study Program. All plans of study and syllabi must be approved by the department.

## GRAPHIC DESIGN

(Also see Art and Photography/Computer Imagery)

### GRDS 171. GRAPHIC DESIGN I (3)

Introductory course designed to provide students with the basic concepts and techniques of graphic design. A variety of traditional tools and techniques are explored through numerous projects, along with an overview of the major historical developments in graphic design. Emphasis is placed on developing production skills, critical and visual aesthetics, and design strategies.

### GRDS 173. GRAPHIC DESIGN I (FOR NON-MAJORS) (3)

An overview of the two-semester series providing non-design majors with the basic concepts and techniques of graphic design. For non-graphic design majors only.

### GRDS 274. GRAPHIC DESIGN II (3)

A continuation of GRDS 171, with additional focus on typography, perspective, spatial relationships, and color. Prerequisite: GRDS 171.

### GRDS 276. INTRODUCTION TO COMPUTER APPLICATIONS (3)

Introduction to understanding and using a computer as a major tool in the development of visual information. The Macintosh computer will be used, focusing on general system operation and utilities as well as illustration and paint software programs. Emphasis is placed on developing an understanding of the selected software programs enabling the student to work productively with them. Prerequisite: GRDS 274, PHOT 282, or permission of the instructor.

### GRDS 370. ADVANCED DESIGN (3)

In-depth study of the elements and principles of design. Problems, research, and field trips are taken to reinforce understanding. Prerequisite: GRDS 276.

### GRDS 373. DIGITAL PRINTING TECHNOLOGIES (3)

In-house and professional output printing methods are investigated. Projects range from digital images and electronic illustration to document layout. A variety of media for final presentation of work is covered. The digital layout, proofing, prepress check lists, and working with print shops are covered extensively. Prerequisites: GRDS 374 and ART 208.

### GRDS 374. TYPOGRAPHY (3)

The course will focus on type—its legibility, readability, and use as a visual element. Type will be investigated in terms of its aesthetic possibilities and as a form of visual communication. Contemporary type structure, type usage in varied formats, and its historical influence will be topics of emphasis. Prerequisite: GRDS 276.

### GRDS 377. ILLUSTRATION (3-6)

Traditional and electronic illustration tools and methods are investigated, as well as a variety of illustration formats. Both the use of illustration as an individual piece and as part of a larger, more diverse work will be explored. Prerequisite: 12 hours of graphic design, drawing/painting or photography.

**GRDS 378. SEMINAR IN THE HISTORY OF GRAPHIC DESIGN (3)**

An overview of significant stages in the development of the field we currently understand as graphic design. Research into historical as well as contemporary topics and issues will be undertaken. Prerequisite: 12 hours of graphic design.

**GRDS 392. COOPERATIVE EDUCATION IN GRAPHIC DESIGN (1-6)**

Intended to provide a bridge between the classroom and the professional world, cooperative education provides supervised work experience directly related to a student's major subject area and career goals. Placement will be in a public or private design position. May be repeated for credit, but not in the same term. Usually offered every term. Prerequisite: Junior level standing with minimum overall GPA of 2.3, 2.7 in the concentration area, approval of academic department, and placement by the Career Development Center. It is recommended that the student complete an internship prior to entering a cooperative education placement.

**GRDS 400. SPECIAL TOPICS IN GRAPHIC DESIGN (3-6)**

A variety of design approaches will be presented. Individually offered courses will focus on a select area of design and work toward developing the student's understanding of it. Specific projects related to topic offered. May include field trips and/or work done at a site other than Shepherd College. Prerequisites: ART 208 and GRDS 373.

**GRDS 470. INTERNSHIP IN GRAPHIC DESIGN (1-3)**

Offered as an extension of the student's classroom experience; students are encouraged to explore working experience in the area of design they hope to pursue. Prerequisite: 12 hours of graphic design and a 3.0 GPA.

**GRDS 479. PROFESSIONAL EXPERIENCES IN DESIGN (3-6)**

Students work toward developing a professional sensibility in both their craft and their involvement in the professional world of design. Active involvement in professional organizations, contest entries, and refinements on previous projects will be expected. Field trips and guest lecturers may be part of the course. Prerequisite: 12 hours preferred within the areas of graphic design, photography, advertising, communication, and marketing, with approval of instructor.

**GRDS 480. INDIVIDUALIZED STUDY/ALTERNATIVES IN GRAPHIC DESIGN (3-6)**

Individual research into a specific area of design that relates to the student's interests and career goals. Topic and work required to be approved by the graphic design coordinator. Students may consider an internship instead of a self-guided research project. Prerequisite: Completion of 21 hours within the graphic design curriculum.

**GRDS 481. COMPUTER APPLICATIONS IN GRAPHIC DESIGN /PHOTOGRAPHY (3)**

A professional approach to the usage of design skills in the production of high profile work. Collaborations with individuals from related professions stressed. Real world jobs worked on and produced. Prerequisite: GRDS 373.

**GRDS 490. CAPSTONE PORTFOLIO (3)**

Senior level class to be taken in conjunction with ART 490. Students work individually on their portfolio, selecting best examples of their work and improving them to a near professional level. Self-promotion and preparation for working in the design field are covered. Prerequisite: Senior level.

## **HEALTH EDUCATION**

**HEALTH 103. PERSONAL HEALTH (3)**

A study of modern health problems and their solutions. Mental health and stress, drug use and abuse, fitness and nutrition, human sexuality, cancer, cardiovascular disease, environmental health, and the aging process will be discussed.

### HLTH 110. WELLNESS IN THE WORKPLACE (3)

This introductory course examines the effects of Workplace Health Promotion (WHP) program including chemical dependency, exercise, heart disease, stress management, smoking cessation, nutrition and cancer screening on absenteeism, worker productivity and peak performance, worker satisfaction and morale, worker injury and illness, and employer costs.

### HLTH 200. HEALTH AND WELLNESS (3)

Examination of activities that help individuals recognize components of lifestyles detrimental to good health, and development of principles and programs to improve quality of life.

### HLTH 225. FIRST AID/CPR (3)

Provides training to enable laypersons to respond appropriately to emergency situations and teaches skills needed to manage emergency situations until professional personnel arrive. Students will learn to recognize emergencies, make first aid decisions, and provide care with little or no first aid supplies or equipment.

### HLTH 300. SUBSTANCE USE AND ABUSE (3)

This course analyzes the psychological, sociological, and pharmacological aspects of drug misuse, and abuse. Prerequisite: HLTH 103.

### HLTH 301. HEALTH AND SAFETY IN THE ELEMENTARY SCHOOL (3)

Prepares elementary education majors to teach health and safety in an elementary school. Students will study the teacher's role, nature of children in grades K-6, planning and demonstration of teaching methods.

### HLTH 360. SCHOOL HEALTH PROBLEMS (3)

Enables students to recognize health problems in the home, community, and school. Strategies help students deal with and resolve health problems are stressed. Prerequisites: HLTH 103 or at least junior class standing. Offered every third semester.

### HLTH 370. COMMUNITY HEALTH EDUCATION (3)

An overview of institutional health agencies and organizations, both official and nonofficial at local, state, and national levels. Exploration of both purpose and function of agencies and institutions for promoting, maintaining, and meeting the health needs of community members. Emphasis on health care, environmental concerns, health legislation, and health insurance. Prerequisite: HLTH 103. Offered every semester.

### HLTH 390. EXERCISE PRESCRIPTION (3)

Provides basic skills and knowledge necessary in assessment of an individual's health status and teaches students to prescribe fitness programs for lifestyle enhancement. Permission of instructor.

### HLTH 420. ISSUES IN DRUG ADDICTION (3)

This course is designed to increase knowledge of substance abuse issues. It should be of special interest to law enforcement personnel, probation officers, teachers, counselors working in the field, and college students.

## HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

### HVAC 101. THEORY OF HEAT (4)

This unit covers basic theory, the control and use of matter and energy, general safety practices and the proper use and maintenance of equipment and tools of the trade. The course provides the groundwork for technical and well as hands-on competencies of the discipline.

**HVAC 102. SAFETY, TOOLS, AND EQUIPMENT (4)**

This course explores proper tubing and piping practices; system evacuation and preparation; the three Rs: recovery, recycling, and reclamation as mandated by the Environmental Protection Agency; proper system charging and adjustment; calibration of testing equipment; and basic electricity and magnetism.

**HVAC 103. AUTOMATIC CONTROLS (4)**

After laying the basic groundwork for electrical functions, this course will explore what makes these systems work the way they are intended. Also examined are automatic controls and their components; electronic and programmable controllers and their applications; calibration; sequence of operation; troubleshooting and adjustments; and electric motors.

**HVAC 104. ELECTRIC MOTORS: INTRODUCTION TO REFRIGERATION (4)**

This course examines the expanded role of electric motors that drive refrigeration systems. Moving into the basic but essential parts of the refrigeration system, the course will explore the roles, operation, and function of evaporators, condensers, compressors, and expansion devices that are the key components to the operation of direct expansion type refrigeration systems used throughout the industry.

**HVAC 105. COMMERCIAL REFRIGERATION (4)**

This course explores special refrigeration system components, their applications, and operating conditions along with their special troubleshooting and operational characteristics of commercial refrigeration as opposed to domestic and refrigeration applied to air conditioning.

**HVAC 106. AIR CONDITIONING: HEATING AND HUMIDIFICATION (4)**

A study of the heating aspect of air conditioning which explores electric, gas, oil, hydronic and alternative sources of heat used in most homes and commercial applications. Indoor air quality is also examined.

**HVAC 107. AIR CONDITIONING: COOLING (4)**

A study of air conditioning, refrigeration characteristics, air distribution and balance, installation, controls, typical operating conditions, and troubleshooting of systems. Exploration of all-weather systems is included.

**HVAC 108. ALL-WEATHER SYSTEMS (4)**

A wrap-up of different types of all-weather systems, different types of heating including air source and geothermal heat pumps, domestic refrigeration, and room air conditioners. Also covered will be high and low pressure and absorption type chillers, supporting cooling towers and pumps, and operation maintenance and troubleshooting procedures.

**HISTORIC PRESERVATION****PRE 101. HISTORIC PRESERVATION (3)**

This course explores the investigation, recordation, analysis, and protection of cultural resources. Archeological sites, historical parks and places, archival collection, conservation and use of museum collections, architectural resources, and historical engineering works will be discussed in their relationship to protection schemes and environmental impact analysis. This core course will introduce students to the wide diversity of cultural resources relevant to environmental science. Crosslisted as ENV 307.

**PRE 102. HISTORIC ARCHITECTURE IN THE U.S. (3)**

The role of American architecture as a cultural resource worthy of study and preservation is the focus of this course. Styles and periods of architecture, the consideration of architectural sources in planning and environmental education, and the reflection of American culture in the built environment will be discussed. This course will serve as an elective in cultural resource management and will be essential for students with an interest in urban planning or park administration. Crosslisted as ANTH 370.

**HPRE 111. HISTORIC PRESERVATION LAW (3)**

This course will offer an overview of the development of local, state, and federal historic preservation laws, with a special emphasis on the importance of the National Historic Preservation Act of 1966. Important case studies nationally and in the region will be explored, and students will be encouraged to study the practical side of preservation law as it applies to agencies and communities in the tri-state region and how those laws are enforced. Prerequisites: HPRE 101, HPRE 102 or permission of the program coordinator.

**HPRE 112. INTERNSHIP IN HISTORIC PRESERVATION (3)**

An independent study that integrates the lessons learned in the classroom with supervisory practical work experiences in historic preservation. Students may satisfy this requirement by working for local, state, or federal agencies (such as the National Park Service), historic preservation firms or non-profit agencies, and architects or building contractors. A final written report is required. Prerequisites: HPRE 101, HPRE 102, HPRE 201, and HPRE 202 or permission of historic preservation program coordinator.

**HPRE 113. BATTLEFIELD PRESERVATION (3)**

This course will survey the development of battlefield preservation in the United States, from the formation of the Gettysburg Battlefield Memorial Association in 1864 to recent efforts to expand the definition of threatened battlefields by the American Battlefield Protection program of the National Park Service. Sites from the French and Indian War to World War II will be featured with special focus on Civil War battlefield preservation efforts since the Civil War Centennial.

**HPRE 201. PRESERVATION TECHNOLOGY AND HISTORIC MATERIALS (3)**

Students will learn the history of architectural technology as applied to the construction of historic building structures. The course will focus on components of historic buildings and structures, materials and fabric used in the past, as well as approved modern replacement components and compatibility with historic materials. Prerequisite: HPRE 101. Crosslisted as ENVS 372.

**HPRE 202. DOCUMENTATION OF HISTORIC PROPERTIES (3)**

Students will learn the methodology for locating, researching, and field recording historic cultural resources. The course will cover photographing, describing, and assessing sites, buildings, and structures and then researching their history as well as mapping and producing site plans, floor plans, and elevations. GIS systems will be introduced. Prerequisite: HPRE 101. Crosslisted as ENVS 371.

**HISTORY****HIST 101. HISTORY OF CIVILIZATION: ANCIENT WORLD THROUGH MEDIEVAL PERIOD (3)**

A survey of ancient and medieval civilization beginning with prehistoric humans, continuing with a study of the ancient Near East, classical Greece, the Roman Republic and Empire, and the Middle Ages with some attention to concurrent developments in the non-Western world. Emphasis is placed on their basic similarities and differences in government, religion, economic, social, cultural, and intellectual (including philosophical) development.

**HIST 102. HISTORY OF CIVILIZATION: RENAISSANCE AND REFORMATION THROUGH FRENCH REVOLUTION (3)**

A survey of the Early Modern period and the Enlightenment, including the Enlightened Despotism that culminates in the French Revolution. Emphasis is given to the major changes in government, economics, art, learning, literature, intellectual movements, science, and the Age of Discovery.

**HIST 103. HISTORY OF CIVILIZATION: FRENCH REVOLUTION AND THE CONGRESS OF VIENNA TO THE PRESENT (3)**

A survey of the French Revolution and its aftermath, of liberalism, nationalism, industrialization, materialism, and imperialism. The student will investigate 20th-century wars, international organizations, and the Third World.

**HIST 201. HISTORY OF THE UNITED STATES TO 1865 (3)**

Survey course examines the basic political, economic, and social forces in the formation and development of the American nation from the Colonial Period through the Civil War.

**HIST 202. HISTORY OF THE UNITED STATES, 1865 TO PRESENT (3)**

Course surveys the basic political, economic, and social forces in the rise of the republic from sectional conflict to a major international role. Moving from Reconstruction to the recent decade, it covers the evolution of the nation from an agrarian to an industrial society.

**HIST 300. HISTORIC PRESERVATION AND INTERPRETATION (3)**

Course will familiarize the student with the historic preservation policies and procedures of local, state, and national governments and of the outstanding private efforts in the field. A study of the general principles and methods of interpretation of historic phenomena to the general public will be involved. Extensive out-of-classroom use will be made of the historical resources in the local area for interpretive practice and preservation examples. Prerequisite: HIST 201/202 or consent.

**HIST 302. AMERICAN COLONIAL HISTORY AND REVOLUTIONARY EXPERIENCE (3)**

Course will examine the motivations and background of European exploration and settlement; the political, social, and intellectual development of the English colonies in America; the imperial role and reaction; the ideological and legal basis of revolution; and the American Revolution and its result.

**HIST 303. THE EARLY REPUBLIC, 1781-1850 (3)**

Emphasis will be on the growth and development of the American Republic in the Confederation Period, the early National Era, the so-called Era of Good Feelings, and the Jacksonian Era.

**HIST 304. THE AMERICAN CIVIL WAR, 1850-1865 (3)**

A study of the causes of the Civil War and of the war itself, with emphasis on the military conflict and the societies which waged it. The course will examine the economic, social, cultural, and political causes of the war; Union and Confederate political and military leadership; the conduct of military and naval operations; and the relationship between war and society.

**HIST 305. HISTORY OF THE LOWER SHENANDOAH VALLEY (3)**

This regional course investigates historical development within the national context. It examines geographical features; early explorations and settlement; the colonial influences in migration, politics, and economy; antebellum matters such as slavery, transportation, and cultural manifestations; the American Civil War; Reconstruction, the farmer's revolt, and industrialization; the limestone and orchard industry; and the 20th-century impact. Some attention is devoted to regional literature as it reflects historical character and biography of major personalities.

**HIST 307. RECONSTRUCTION ERA, 1865-1877 (3)**

This course will detail the immediate effects and the enduring impact of the American Civil War upon the modern United States in the areas of race, constitutional development, national and state politics, and economy. It will explore postwar adjustments in all sections, the evolution of national policies on major issues, and the various interpretations of national reconciliation that culminate in the disputed presidential election of 1876.

**HIST 308. THE OLD SOUTH (3)**

This course examines the development of the American South from the Colonial period to 1850 as a distinctive section. It traces the origins of the plantation system; the rise of democracy, slavery, and the common man; the westward movement; and the Southern position on national political issues. It also appraises societal, intellectual, and political conflicts within the section.

**HIST 309. WEST VIRGINIA AND THE APPALACHIAN REGION (3)**

Emphasis upon the development of western Virginia and the state of West Virginia. This course

will examine the general geographical, political, and economic aspects of the southern Appalachian region. The impact upon the Mountain State of the patterns of settlement, the heritage sectional conflict, the statehood movement, legal and political developments accompanying the assimilation of the area into the national economy, and national events will be considered. The student will view the current problems of the area and contemporary Appalachian society.

### HIST 310. THE GILDED AGE AND PROGRESSIVE ERA (3)

Course will encompass the domestic development of modern America from the end of Reconstruction through the New Freedom program of Woodrow Wilson.

### HIST 311. ECONOMIC HISTORY OF THE UNITED STATES (3)

This survey course traces the historical development of the American economy from the Colonial Period to the 20th century. Based on the broad social, cultural, and legal context of economic growth, it devotes attention to the major historiographical debates about various phases of United States economic history.

### HIST 312. AMERICAN SOCIETY IN AN ERA OF CRISES, 1917-1945 (3)

A survey of important social, cultural, economic, and political trends and events in the United States from World War I to the end of World War II.

### HIST 314. RECENT UNITED STATES HISTORY, 1945 TO PRESENT (3)

A survey of important social cultural, economic, and political trends and events in the United States since the end of World War II.

### HIST 318. UNITED STATES AND WORLD WAR II

Covers the event leading to the war, the major campaign, and the effects of the war on the home front. Major emphasis is upon military strategy and the campaigns.

### HIST 320. SUB-SAHARAN AFRICA (3)

An interdisciplinary examination of Sub-Saharan Africa, including the great migrations, the genesis of modern Africa in the nineteenth century, the impact of imperialism, and the rise and consequences of nationalism.

### HIST 329. THE RENAISSANCE AND REFORMATION (3)

A study of Renaissance politics, literary and intellectual contributions, and the conditions of social and religious unrest which led to the successes and failures of the Reformation.

### HIST 330. HISTORY OF EARLY CHRISTIANITY (3)

A history of early Christianity with a strong emphasis on its Judaic and Greek roots. Stress will be placed on geographical spread, significant persons, philosophies, governments, and theological concerns (also listed as RELG 330).

### HIST 331. ANCIENT CIVILIZATION (3)

The process by which civilizations develop and the application of this process to the ancient civilizations of the Mediterranean with special emphasis on the Hebrew and the classical civilizations of Greece and Rome. Prerequisite: HIST 101 or its equivalent.

### HIST 332. MEDIEVAL HISTORY (3)

Concerns the development of Western traditions during this formative period of history from the fall of Rome to the Renaissance. Emphasis is placed on the development of the Christian Church and philosophy, the barbarian invasions, the crusade, and the formative beginnings of nation-states. Prerequisite: HIST 101 or its equivalent.

### HIST 333. MODERN EUROPEAN HISTORY (3)

The political, economic, and intellectual achievements and failures of Europe from the time of the

French Revolution to the coming of World War I, including the impact of European contact with the non-European world. Prerequisite: HIST 102 or its equivalent.

**HIST 337. HISTORY OF WOMEN IN EUROPE (3)**

An examination of issues in the political, intellectual, cultural, social, and economic history of European women from the Middle Ages to the present.

**HIST 402. DIPLOMATIC HISTORY OF THE UNITED STATES (3)**

A survey of the development of the foreign policy of the United States from Colonial times to the present.

**HIST 404. THE CONTEMPORARY WORLD SINCE 1929 (3)**

Concerns political and intellectual events since the Great Depression and their impact on the contemporary scene.

**HIST 405. INTRODUCTION TO AFRICAN-AMERICAN HISTORY (3)**

An examination of the African and West Indian background of slave trade; the institution of slavery in antebellum United States; the effects of Civil War and Reconstruction; the pursuit of self-help and democracy and repression; and the black renaissance and revolution. Attention will be devoted to historical development of the African in American cultures other than the United States. Prerequisites: HIST 201 or 202 or their equivalent.

**HIST 407. HISTORY OF ENGLAND TO 1603 (3)**

A survey of British civilization from the Roman Conquest through the Tudor Age with emphasis on political, economic, social, and cultural developments.

**HIST 408. HISTORY OF ENGLAND SINCE 1603 (3)**

A survey of British civilization from the Stuarts to the present, continuing the political, economic, social, and cultural developments. Emphasis will be placed on Britain's emerging role in world affairs.

**HIST 410. HISTORY OF RUSSIA TO 1855 (3)**

A survey of medieval and early imperial Russia with special emphasis on political, social, economic, and cultural developments.

**HIST 411. LATIN AMERICAN HISTORY (3)**

The colonial period, the independence movement, rise of national states, national and international developments to the present.

**HIST 412. HISTORY OF RUSSIA SINCE 1855 (3)**

A survey of late imperial and Soviet Russian history with special emphasis on political, social, economic, and cultural developments.

**HIST 413. TECHNIQUES OF RESEARCH (3)**

An opportunity for independent study and preparation for graduate work. Included are methodology, historiography, and extensive work with source materials. This course is recommended for both history and political science majors. By permission of the instructor.

**HIST 414. HISTORY OF THE BYZANTINE EMPIRE AND MEDIEVAL ISLAM I (3)**

A study of the political, religious, and cultural institutions of the Byzantine Empire from Constantine the Great to the end of the Macedonian epoch in 1081, and of the foundations of Islam and the development of its empire to 1055.

**HIST 415. HISTORY OF THE BYZANTINE EMPIRE AND MEDIEVAL ISLAM II (3)**

A study of the political, religious, and cultural institutions of the Byzantine Empire, 1081-1453 (from the Comneni emperors to the fall of Constantinople), and of the Persian, Seljuk, and Ottoman Turkish states.

### HIST 419. HISTORY OF EAST ASIA TO 1800 (3)

This course examines the histories of China, Japan, and Korea, from their beginnings to the commencement of their intensive contact with Western nations. The course will balance the historical primacy of China in the region with the political and cultural independence of neighboring states.

### HIST 420. MODERN EAST ASIA SINCE 1800 (3)

The response of China, Japan, and Korea to the challenge of the West during the nineteenth and twentieth centuries.

### HIST 425, HIST 426. READINGS IN AMERICAN AND WESTERN HEMISPHERIC HISTORY (3)

Course will be devoted to the extensive reading of standard and classic monographs, biographies, or articles on selected American or Western Hemispheric topics. The specific topics and presiding professor will be announced prior to registration periods.

### HIST 427, HIST 428. READINGS IN EUROPEAN AND WORLD HISTORY (3)

Devoted to the extensive reading of standard and classic monographs, biographies, or articles on selected European and World topics. The specific topics and presiding professor will be announced prior to registration periods.

### HIST 430. CIVIL WAR SEMINAR (3)

A special topics seminar which will investigate some aspect of the Civil War, e.g., Europe and the American Civil War, Abolitionism. The topic will vary from year to year. Each student, in consultation with the seminar director, will write a research paper related to the topic.

### HIST 435. PRACTICUM IN CIVIL WAR STUDIES (3)

This course provides practical learning experience in a Civil War or 19th-century related park, museum, library, or similar setting. Possible sites are the national parks in Antietam and Harpers Ferry, Shepherd's George Tyler Moore Center for the Study of the Civil War, or the Museum of Civil War Medicine. Students will work at least 40 hours in tasks assigned by the cooperating site supervisor and the instructor and, in consultation with the instructor and the site supervisor, will produce a research paper related to some aspect of the site.

### HIST 438. SOLDIERS AND AMERICAN SOCIETY (3)

An intensive research and writing course that examines the life of the common soldier of the Civil War and the society of which he was a part. It includes a research trip to the National Archives and participation in the annual summer seminar hosted by the George Tyler Moore Center for the Study of the Civil War.

## HOSPITALITY AND TOURISM

### HOST 111. INTRODUCTION TO THE HOSPITALITY INDUSTRY (3)

A survey course designed to acquaint the student with a brief history of the hospitality industry and provide an overview of the industry and how the various segments relate.

### HOST 203. LODGING MANAGEMENT (3)

A study of operations within the lodging industry covering all departments involved in front office management.

### HOST 280. INTERNATIONAL TOURISM AND HOSPITALITY (3)

This course is a study of the international tourism industry. The tourism industry analysis includes such areas as destination sites, logistic channels, marketing and PR, costs and cultural differences, and necessary flexible adjustment to meet the international customer demands and wants.

### HOST 290. SERVICE INDUSTRY EXTERNSHIP (HOTEL AND MOTEL) (3)

To apply theoretical concepts gained in the classroom, each student will be assigned to a hotel

hotel complex for a minimum of 200 hours of supervisory or managerial experience along with a number of meetings with the professor. Prerequisite: Junior or senior standing or permission.

#### HOST 292. HOSPITALITY/TOURISM INTERNSHIP (3)

This course will provide the student with practical experience in the local and regional hospitality and/or tourism business. Students learn how to translate classroom theory and methods into professional skills and opportunities. Prerequisite: A student must have completed over half of the requirements for graduation with an associate's degree and must have a 2.5 overall GPA. Approval by the associate's degree program coordinator required prior to enrollment.

#### HOST 294. COOPERATIVE EDUCATION IN HOTEL-MOTEL AND RESTAURANT MANAGEMENT (1-9)

May be repeated for credit, but not in the same term; topic must be different. Usually offered every term. Prerequisite: Must have junior level standing with minimum 2.5 overall and 2.75 major GPA, approval of academic department, and placement by the Career Center.

### INFORMATION TECHNOLOGY

#### IT 100. CRITICAL THINKING (2)

This course is designed to encourage students to begin the important process of thinking for a living. Topics include problem identification, information gathering and evaluation, creative problem solving, decision-making, and solution implementation.

#### IT 114. SURVEY OF OPERATING SYSTEMS (3)

An introduction to operating systems across computing platforms. Topics include process and storage management, protection, and security. This course presents an overview of common desktop, network, and handheld systems.

#### IT 130. ADVANCED WORD PROCESSING CONCEPTS (3)

This course will prepare students for the Microsoft Office User Specialist exam for Microsoft Word at the expert level. Topics include editing, formatting, outlines, tables, desktop publishing, and an introduction to HTML.

#### IT 131. CISCO NETWORKING FUNDAMENTALS (4)

This is the first course leading to Cisco certification. Topics include the OSI model, network addresses, internetworking functions, data encapsulation, IP addresses, and the TCP/IP network-layer protocols.

#### IT 135. ELECTRONIC SCHEDULING (1)

Students will learn to use Microsoft Outlook to communicate by e-mail, organize and work with contacts, manage appointments and calendar, take charge of tasks, use the journal to log business activities, and provide security for files and e-mail messages.

#### IT 140. ADVANCED DATABASE CONCEPTS (3)

This course will prepare students for the Microsoft Office User Specialist exam for Microsoft Access at the expert level. Topics include database design, tables, forms, reports, subforms, multiple table queries, relationships, and macros.

#### IT 141. ROUTER THEORIES AND ROUTER TECHNOLOGIES (4)

To prepare for Cisco certification, students will examine router elements, log into and setup a router, and learn to configure IP addresses and access lists. Prerequisite: IT 131.

#### IT 145. ELECTRONIC PRESENTATIONS. (2)

Students will learn to create, deliver, and print slide presentations; apply and modify templates; implement color schemes, add clip art, charts, and graphs; draw and modify objects; create a presentation using multimedia files; and publish presentations over the Internet.

### IT 150. ADVANCED SPREAD SHEET CONCEPTS (3)

This course will prepare students for the Microsoft Office User Specialist exam for Microsoft Excel at the expert level. Topics include copying, formatting, isolating assumptions, decision-making, charts, graphs, data management, file linking, 3-D workbooks, and macros.

### IT 179. INTRODUCTION TO PC HARDWARE (1)

This course begins the introduction to PC technology as identified by the objectives in CompTIA A+ certification. The class provides the framework for understanding how computers work from the inside out. It is the perfect start into PC hardware and operating systems.

### IT 180. PC REPAIR AND TROUBLESHOOTING (3)

This hands-on course is designed to show students how to upgrade and troubleshoot PCs on their own. Topics include setting up motherboards and hard drives; identifying and installing memory; modifying CMOS settings; configuring sound cards and modems; troubleshooting; and installing basic operating systems. Prerequisite: IT 179.

### IT 181. PC OPERATING SYSTEMS (3)

This hands-on course is designed to show students how to install, configure, and troubleshoot PC operating systems. Students will get experience working with DOS, Windows 98, Windows NT 4.0, and Windows 2000. Prerequisite: IT 180.

### IT 190. INTRODUCTION TO PROGRAMMING IN C++ (3)

This course covers the fundamentals of the Microsoft Foundation Class (MFC) libraries. This course will familiarize programmers with the Microsoft Developer Studio visual development system and teach them how to create single document interface (SDI) applications using MFC and the Visual C++ development system.

### IT 192. INTRODUCTION TO PROGRAMMING IN VISUAL BASIC (3)

This course familiarizes the student with the visual studio environment using Visual Basic. Students will use foundation class libraries to develop simple applications.

### IT 200. NETWORKING FUNDAMENTALS (3)

This custom-designed course begins with a brief review of hardware, operating systems, and other principles helpful to networking students. It then moves on to comprehensive networking skill sets, all of which prepare the IT 200 student to complete his/her CompTIA Network+ exam. Throughout the course, students are introduced to invaluable study techniques and industry resources, all of which are geared toward laying the foundation for efficient adult IT learning.

### IT 208. ADMINISTERING SQL SERVER (3)

This course provides students with the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL server.

### IT 209. DESIGNING AND IMPLEMENTING DATABASES WITH SQL SERVER (3)

This course provides students with the technical skills required to program a database solution by using Microsoft SQL server. Prerequisite: IT 208.

### IT 210. WINDOWS 2000 NETWORK AND OPERATING SYSTEMS ESSENTIALS (2)

This course introduces students to Microsoft Windows 2000 and to the networking technology it supports. Topics include administration of a Windows 2000 network, security, and examining TCP/IP. Prerequisite: IT 200 or equivalent experience.

### IT 213. UPDATING SUPPORT SKILLS FOR MICROSOFT WINDOWS NT TO MICROSOFT WINDOWS 2000 (3)

This course provides support professionals of Microsoft Windows NT 4.0 with the knowledge and skills necessary to support Microsoft Windows 2000 networks. Note that this class is on

applicable for those students interested in taking Microsoft's 70-240 update exam (from NT 4.0 to Windows 2000).

**IT 215. SUPPORTING WINDOWS 2000 PROFESSIONAL AND SERVER (3)**

This course provides students with the knowledge and skills necessary to install and configure Windows 2000 Professional on stand-alone computers that are part of a work group or domain. In addition, this course provides the skills and knowledge necessary to install and configure Windows 2000 server to create file, print, and servers. Prerequisite: IT 210.

**IT 216. SUPPORTING A NETWORK INFRASTRUCTURE USING WINDOWS 2000 (3)**

This course is for new-to-product support professionals who will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows 2000 server family of products. Prerequisite: IT 215.

**IT 217. IMPLEMENTING AND ADMINISTERING WINDOWS 2000 DIRECTORY SERVICES (3)**

This course is designed to provide students with the knowledge and skills necessary to install, configure, and administer the Microsoft Windows 2000 active directory service. The course also focuses on implementing group policy and understanding the group policy tasks required to centrally manage users and computers. Prerequisite: IT 216.

**IT 219. DESIGNING A WINDOWS 2000 DIRECTORY SERVICES INFRASTRUCTURE (2)**

This course provides Microsoft senior support professionals and network architects with the knowledge and skills necessary to design a Microsoft Windows 2000 directory services infrastructure. Strategies are presented to assist the student in identifying the information technology needs of the organization and then designing the active directory structure that meets those needs.

**IT 220. DESIGNING SECURITY FOR A WINDOWS 2000 NETWORK (3)**

Students learn to control and audit access to network resources implementing authentication and encryption in medium to very large computing environments.

**IT 221. DESIGNING A WINDOWS 2000 NETWORKING SERVICES INFRASTRUCTURE (2)**

This course provides senior support professionals with the information and skills needed to create networking services infrastructure design that supports the required network applications. Each module provides a solution based on the needs of the organization.

**IT 222. DESIGNING A WINDOWS 2000 MIGRATION STRATEGY (1)**

This course provides students with the knowledge and skills necessary to select and design a strategy to migrate from a Microsoft Windows NT Server 4.0 directory services infrastructure to Microsoft Windows 2000 active directory service by describing the planning processes and applications involved.

**IT 231. ADVANCED ROUTER TECHNOLOGIES (4)**

Continuing the Cisco series, students will enable and configure IPX operation, implement LAN segmentation using bridges, switches and routers, and study Fast Ethernet, virtual LANs, and the Spanning Tree Protocol. Prerequisite: IT 141.

**IT 233. DESIGNING WEB SITES WITH FRONTPAGE (3)**

Students will learn how to create Web documents by using the Microsoft FrontPage Web authoring and management tool and by editing the HTML tags directly. Students will create HTML documents that contain forms, standard controls, ActiveX controls, Java applets, and client-side script. They will also learn how to use the dynamic HTML and data binding features supported by Microsoft Internet Explorer. Finally, students will learn how to publish and test Web pages on a Web server.

**IT 234. DESIGNING AND IMPLEMENTING E-COMMERCE SOLUTIONS WITH SITE SERVER (3)**

Students will learn to design, build, and implement Web-based commerce solutions by using

Microsoft Site Server, commerce edition also known as commerce server. Topics include installation and configuration of commerce server, creating user services, creating components and managing pipelines, creating data services, deploying and testing solutions, managing access and maintaining commercial Web sites.

### IT 235. DESIGNING AND IMPLEMENTING WEB SOLUTIONS WITH VISUAL INTERDEV (3)

Students examine a wide range of Web development, including Dynamic HTML, Document Object Model (DOM), Active Server Pages, COM components, ActiveX Data Objects (ADO), Remote Data Service (RDS), Microsoft Transaction Server (MTS), security issues, mail service integration, FrontPage Search Bot and Index Server, and multimedia integration.

### IT 241. PROJECT BASED LEARNING (3)

The final course in the Cisco series covers a variety of WAN services, including Frame Relay and ISDN. Prerequisite: IT 231.

### IT 245. I-NET+ (3)

This course is the foundation course for CIW (Certified Internet Webmaster) certification. Students learn how to use key Internet technologies, such as Web browsers, e-mail, newsgroups, File Transfer Protocol (FTP), telnet, and search engines. They also learn how to create simple Web pages containing text, graphics, hyperlinks, tables, forms, and frames. Students also learn fundamental networking concepts and practices, including network architecture and standards, networking protocols, TCP/IP, Internet servers, server-side scripting and database connectivity, and security.

### IT 246. SITE DESIGNER (3)

Students learn how to create and manage Web sites with tools such as Macromedia Dreamweaver and Flash and FrontPage. Students will also implement the latest strategies to develop third-generation Web sites, evaluate design tools, discuss future technology standards, and explore the incompatibility issues surrounding current browsers. The course focuses on theory, design and Web construction, along with information architecture concepts, Web project management, scenario development and performance evaluations.

### IT 247. E-COMMERCE DESIGNER (3)

Students learn how to conduct business on-line and the technological issues associated with constructing an electronic-commerce Web site. Students will implement a genuine transaction-enabled business-to-consumer Web site, examine how such sites are managed, and explore how they can complement an existing business infrastructure. Students get hands-on experience implementing the technology to engage cardholders, merchants, issuers, payment gateways, and other parties in electronic transactions.

### IT 251. SOLUTIONS ARCHITECTURE (3)

Students use extensive real-world case study examples that apply programming concepts and illustrate methods for design planning and implementation. These case studies also provide practical experience analyzing business requirements, selecting development tools, and designing and building a working solution.

### IT 252. DISTRIBUTED APPLICATIONS WITH VISUAL C++ (3)

This course will teach developers who use the Microsoft Visual C++ development system how to create component object model (COM) objects using Visual C++ and the Active Template Library (ATL). Prerequisite: IT 253.

### IT 253. DESKTOP APPLICATIONS WITH VISUAL C++ (3)

This course will teach C++ programmers how to develop applications by using Microsoft Foundation Class (MFC) Library and the Microsoft Visual C++6 development environment. Prerequisites: IT 190, IT 251.

**IT 254. DISTRIBUTED APPLICATIONS WITH VISUAL BASIC (3)**

Students will apply the Microsoft Solution Framework to a multi-tier environment, creating a user interface, COM DLLs, and Active X data objects using Visual Basic. Prerequisites: IT 255.

**IT 255. DESKTOP APPLICATIONS WITH VISUAL BASIC (3)**

This course introduces user interface design, including control arrays, menu basics and data validations. Students use VB classes to model business objects. COM objects and Active X basics are introduced. Prerequisites: IT 192, IT 251.

**IT 260. INTRODUCTION TO ORACLE (3)**

This course offers students an extensive introduction to data server technology. The class covers the concepts of relational databases and the powerful SQL and PL/SQL programming languages. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data. In addition, students learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports, and data management applications. Demonstrations and hands-on practice reinforce the fundamental concepts.

**IT 261. ORACLE FORMS I (3)**

In this course, participants build and test interactive applications consisting of one or more Oracle Forms modules. Working in a graphical user interface (GUI) development environment, participants will build a complete forms application. In the process, participants learn how to customize forms with graphical user input items, such as check boxes, list items, and radio groups. They also learn how to modify data access by creating event-related triggers. Prerequisite: IT 263.

**IT 262. ORACLE REPORTS (3)**

In this course participants learn to develop a variety of standard and custom reports using Oracle Reports in a client/server environment. Class exercises guide participants in retrieving, displaying, and formatting data in numerous report styles such as tabular, break, master/detail, matrix, and form letter reports. Participants will also customize tier reports by combining text and graphics with quantitative data to meet specific business requirements. Prerequisite: IT 264.

**IT 263. ORACLE PROGRAM UNITS (2)**

This course enables participants to learn how to write PL/SQL procedures, function, and packages. Working in both the Procedure Builder and the SQL\*Plus environments, participants will learn how to create and manage PL/SQL program units and database triggers. Participants will also learn how to use some of the Oracle-supplied packages. Prerequisite: IT 260.

**IT 264. ORACLE FORMS II (2)**

This course instructs technical professionals on how to broaden their skills with Oracle Forms. The course makes extensive use of complex Oracle Forms concepts. Prerequisite: IT 261.

**IT 269. PROJECT MANAGEMENT (3)**

This is a comprehensive course that will examine the various models used to develop and control the work breakdown structure (WBS), schedule, and cost. Additionally, the class will perform analysis on the time and cost models and evaluate the outcome. There will be case programs and labs utilizing MS Project and the project management process tool.

**IT 292. INTERNSHIP IN INFORMATION TECHNOLOGY (3)**

Capstone course in experiential learning. A student participates in an intensive internship, externship, or cooperative with an appropriate agency, company, or organization.

**JOURNALISM**

Also see COMM 212, 340, 400 and ENGL 370 and 372.

**JR 204. INTRODUCTION TO PRINT JOURNALISM (3)**

Foundations-level course in the journalism minor which is intended to emphasize accurate, balanced reporting and effective news writing style. Assignments include hard news, interviews,

columns, public relations, and feature stories. The basics of libel law and journalistic ethics will also be considered. Prerequisite: ENGL 101.

### JOUR 316. MAGAZINE WRITING (3)

A survey of the world of magazine writing, which helps students learn how to generate story ideas, aim query letters at specific publications, deal with issues of the writer-editor relationship, and carry out the research, drafting, and marketing of full-length feature stories. Prerequisite: ENGL 101.

### JOUR 444. PRACTICUM IN 'THE PICKET' (3)

The purpose of this course is to provide supervised experience in all phases of reporting and writing for the student newspaper, *The Picket*. Each student may select a particular area of interest involving writing, editing, or layout of the paper. The focus will be on the basic skills required of a professional journalist, including developing a personal portfolio. Prerequisite: Permission of coordinator of the print journalism minor. This course may be repeated for credit.

### JOUR 445. PRACTICUM IN PRINT JOURNALISM I (1)

The student serves on *The Picket* staff for one semester, fulfilling a variety of administrative tasks. Prerequisite: Permission of coordinator of print journalism minor. This course may be repeated for credit.

### JOUR 451. INTERNSHIP IN PRINT JOURNALISM (3)

A capstone course involving all that the student has learned during enrollment in the program. Working through the Washington Semester Program or with a local newspaper, the student engages in an internship with a professional newspaper. Prerequisite: Prior written approval from the coordinator of print journalism minor.

## LIBRARY SCIENCE

### LBSC 100. INFORMATION RESEARCH METHODS (1)

A practical introductory course designed to familiarize the student with resources, methods, and procedures common to libraries and other resource centers. Open to all students.

## MASS COMMUNICATION

(See Communications)

## MATHEMATICS

### MATH 101. INTRODUCTION TO MATHEMATICS (3)

A systematic approach to organized reasoning by study of the rudiments of logic. Study of the structure of various mathematical systems and operations defined on these systems. An analysis and discussion of the uses of such systems. The counting techniques of permutations and combinations may be considered. Prerequisite: ACFN 070 and ACFN 080, or ACFN 090 or satisfactory placement score.

### MATH 105. ALGEBRA (3)

Topics in college algebra include properties of the real numbers; radicals and rational exponents; operations on polynomials and rational expressions; solution of linear and quadratic equations and inequalities; functions, including graphs and composite functions; properties of linear functions; and systems of two linear equations and inequalities. This course does not fulfill the general studies requirement in mathematics. Prerequisite: ACFN 070 and 080, or ACFN 090 or satisfactory placement score.

### MATH 106. TRIGONOMETRY (3)

A study of the trigonometric functions and identities, multiple angle formulas, inverse trigonometric functions, deMoivre's theorem and complex numbers, applications. Prerequisite: MATH 105 or satisfactory placement score.

**MATH 108. PRECALCULUS (3)**

Topics in algebra which will prepare students for the study of calculus, including complex numbers, graphs of nonlinear functions and relations, conic sections, graphical and algebraic solutions of nonlinear equations, solutions of exponential and logarithmic equations, introduction to analytic geometry, sequences, series, summations, and mathematical induction. Prerequisite: MATH 105 or satisfactory placement score.

**MATH 111. MATHEMATICS OF FINANCE (3)**

This course examines principles of interest and discount, annuities and insurance, amortization, bonds and similar topics. This course does not fulfill the general studies requirement in mathematics. Prerequisite: Satisfactory placement score.

**MATH 154. FINITE MATHEMATICS (3)**

Mathematical models for the analysis of decision-making problems are examined. Topics include the echelon method for solving linear equations, matrix manipulations, optimization by linear programming including the simplex method, risk decisions using probability, expected value, and statistics. Additional topics may be chosen from network models or game theory. Prerequisite: ACFN 070 and ACFN 080, or ACFN 090 or MATH 105 or satisfactory placement score.

**MATH 200. COLLEGE GEOMETRY (2)**

The course offers a survey of classical Euclidean geometry with reference to non-Euclidean geometry. Both informal and formal geometry are introduced emphasizing the use of algebra. Constructions and curve tracing are integrated throughout various topics. Deductive logic and use of truth tables are examined in applied situations. Prerequisite: MATH 108 and one year of high school geometry or consent of the instructor. Required for all mathematics teaching programs.

**MATH 205. CALCULUS WITH APPLICATIONS (4)**

Topics in differential and integral calculus, with stress on their applications in business, biology, social, and behavioral sciences. Prerequisite: MATH 105 or MATH 154 or consent of the instructor.

**MATH 207. CALCULUS I (4)**

Fundamental concepts of calculus, using analytic geometry. After preliminaries about the real number system, intervals, and functions, properties of limits are carefully stated. These are used to develop standard differentiation formulas. Applications of the derivative (as a rate of change) are stressed in a wide variety of problems. Introduction to integration via anti-differentiation and area and the fundamental theorem. Applications of the integral (volumes, arc length, surface area, etc.) Prerequisite: MATH 108; prerequisite or corequisite: MATH 106 or satisfactory placement score.

**MATH 208. CALCULUS II (4)**

Continuation of MATH 207. Calculus of exponential, logarithmic, and trigonometric functions; techniques of integration. Review of conic sections in standard form and in rotation. Polar coordinates, l'Hôpital's rule, improper integrals, infinite series, and Taylor series. Prerequisite: MATH 207.

**MATH 254. DISCRETE MATHEMATICS (3)**

Topics from modern mathematics with particular emphasis on those with applications to computer science. Logic, sets, number systems and number theory, enumeration, graphs and trees, matrices, finite algebraic systems, and analysis of algorithms are examined. Prerequisite: MATH 108 or MATH 154.

**MATH 280. SYMBOLIC LOGIC (2)**

Classical introduction to Aristotelian logic using truth tables or Venn diagrams. Application to

Boolean arithmetic and algebra. Positive and negative logic as in gate structures for digital circuits. Prerequisite: MATH 105, MATH 154, or MATH 101.

### MATH 290, 291. PRACTICUM IN MATHEMATICS TEACHING (1)

Practical experience in teaching mathematics will be provided in a tutorial setting, under the guidance and supervision of a faculty member. Two or three hours of student-tutor interaction will be arranged each week. Prerequisite: MATH 207.

### MATH 300. MATHEMATICS FOR ELEMENTARY TEACHERS (3)

An in-depth study of the elementary curriculum content examining methods, problems, and techniques involved in mathematics instruction. Prerequisite: MATH 101.

### MATH 307. INTRODUCTION TO LINEAR ALGEBRA (3)

The course begins with a study of linear systems, using matrices and determinants to solve them. Vector spaces are treated axiomatically and discussed geometrically. Linear transformation of vector spaces and their matrix representations are considered. Finally eigenvectors and eigenvalues are considered with applications. Prerequisites: MATH 154 or MATH 254, and MATH 207 or MATH 205.

### MATH 309. CALCULUS III (4)

Continuation of MATH 208. Vectors in the plane and in space, parametric equations, solid analytic geometry. Calculus of functions of several variables including partial derivatives, multiple integrals, and their applications. Prerequisite: MATH 208.

### MATH 310. DIFFERENTIAL EQUATIONS (4)

Examines first order ordinary differential equations (e.g. exact, separable, Bernoulli, homogeneous), direction field, numerical solution; higher order equations including the methods of Lagrange and undetermined coefficients; Laplace transforms; systems of first order equations; introduction to Fourier series; and applications in the physical and biological sciences. Prerequisite: MATH 208.

### MATH 312. INTRODUCTION TO ABSTRACT ALGEBRA (3)

Introduction to algebraic structures such as groups, rings, and fields. Formal development of their properties, complemented by examples and applications. Prerequisites: MATH 208 and MATH 254.

### MATH 314. STATISTICS (3)

This course, for those needing knowledge of statistical methods and the interpretation of statistical data, examines frequency distributions, measures of central tendency and dispersion, hypothesis testing using  $z$ ,  $t$ , and chi-square tests; and correlation. Both discrete and continuous data are presented emphasizing a wide selection of applied problems. Students may not receive credit for both this course and BADM 224. Prerequisite: ACFN 070 and 080, or ACFN 090 or MATH 105. Recommended additional preparation: MATH 154 or MATH 108.

### MATH 317. COMPUTATIONAL MATHEMATICS (3)

A laboratory-based course treating topics in mathematics using a "computer algebra" system. A study of the fundamentals of a symbolic manipulator system, such as Mathematica and Maple, which can display factoring as well as derivative and integral formulas. Applications include solution of problems arising in calculus, graph theory, number theory, statistics, and sciences. Prerequisite: MATH 207 or 205.

### MATH 318. NUMERICAL ANALYSIS (3)

A study of numerical methods applied to such problems as the solutions of equations, interpolation, differentiation, integration, and solution of differential equations. Emphasis on obtaining solutions with computer programs. Prerequisite: MATH 208.

### MATH 321. PROBABILITY AND STATISTICS (3)

Topics include axioms for probability; random variables, discrete and continuous probability

distributions; expected value; functions of random variables; covariance; conditional probability; independence; confidence intervals; tests of hypotheses: normal, t, signed-rank, chi-square tests; linear regression and correlation. Prerequisite: MATH 207 or MATH 205. Recommended additional preparation MATH 208.

### MATH 329. MATHEMATICAL MODELING (3)

aimed at applications, primarily from the environmental sciences, this course is designed to explicitly demonstrate the ways mathematics is used to solve problems arising in the natural sciences and in other walks of life as well. A wide variety of phenomena in nature can be described by what one calls a mathematical model. This may involve statistics, differential equations, computer simulation, algebraic and combinatorial structures. River and lake pollution, spread of an epidemic, population growth, solar energy, and vibration, as well as several economics, chemistry, and political science models will be studied. Prerequisites: MATH 205 or MATH 207 and MATH 154 or MATH 254 or permission of instructor.

### MATH 392. COOPERATIVE EDUCATION IN MATHEMATICS (3-9)

Cooperative Education is a form of education which integrates classroom study with paid, planned, and supervised work experiences in the public and private sectors. Cooperative education allows students to acquire essential, practical skills by being exposed to the reality of the work world beyond the boundaries of campus, enhancing their self-confidence and career direction. Co-ops may extend beyond the semester and may be paid positions. A co-op must have an academic component. A cooperative education agreement is signed by the employer supervisor, the faculty supervisor, and the student. The co-op may be repeated for credit, but not in the same term; the topic must be different. Prerequisite: Sophomore standing; minimum 2.5 overall GPA; approval of Mathematics and Engineering Department; placement by Career Center.

### MATH 404. NUMBER THEORY (3)

An introductory course in number theory with emphasis on the classical theorems and problems. Prerequisite: MATH 307 or MATH 312.

### MATH 405. TOPICS IN MODERN MATHEMATICS (3)

A course designed to acquaint the advanced student with certain topics outside the traditional course in mathematics. Prerequisite: Consent of instructor.

### MATH 409. INTRODUCTION TO COMPLEX VARIABLES (3)

The course begins with the arithmetic of complex numbers, including powers, roots, and polar representation, with special emphasis on the geometric view. Several function classes are studied in the setting of the complex plane, especially linear, linear fractional, exponential, logarithmic, and trigonometric. Includes basic notions from calculus, particularly limits, continuity, and the derivative, are reexamined in the complex setting. Special attention is given to the properties of analytic functions, harmonic functions, and the Cauchy-Riemann equations. Applications are considered in areas such as steady state temperature patterns and electrostatic potentials. The latter part of the course deals with contour integration techniques, power series representation, and the classic theorems on analytic functions of a complex variable. Prerequisite: MATH 309 or permission of instructor.

### MATH 410. ADVANCED CALCULUS (3)

A thorough examination of the fundamentals of elementary calculus and its extensions, with emphasis on interrelation with other areas of mathematics, and upon various applications. Prerequisites: MATH 309; MATH 307 or MATH 312.

### MATH 413. QUANTITATIVE METHODS (3)

See BADM 413 in Business Administration course listings.

### MATH 414. HISTORY AND DEVELOPMENT OF MATHEMATICS (3)

An Apstone course requiring mathematical maturity. A survey of mathematical topics dating from

ancient times, with emphasis on the development of numbers, algebra, theory of planetary motion, and non-Euclidean geometry. In preparation for a comprehensive test, a structured review of core mathematical ideas and techniques will be included. Prerequisite: MATH 208, (309 or 312), and permission of instructor.

#### MATH 415. INTRODUCTION TO TOPOLOGY (3)

Study of the properties of regions unaffected by continuous mappings. Includes consideration of open and closed sets, interior and boundary of a set, and neighborhood systems; motivation for concrete applications of the idea of a topological space and its separation properties. Other topics may include various applications of the notions of convergence and compactness. Prerequisites: MATH 207; MATH 307 or MATH 312.

#### MATH 424. FOUNDATIONS OF GEOMETRY (3)

A careful axiomatic development of certain parts of elementary Euclidean and non-Euclidean geometry. The examination of the axiomatic method as an important pattern of thought. Prerequisite: MATH 207 or MATH 254.

#### MATH 425. PROJECTIVE GEOMETRY (3)

Homogenous coordinates, higher dimensional spaces, conics, linear transformations and quadric surfaces, and similar topics are examined. Prerequisites: MATH 200 or MATH 424; MATH 307 or MATH 312.

#### MATH 430. INDEPENDENT STUDY (1-3)

Under certain conditions, advanced students may be admitted to independent study in mathematics. See detailed requirements elsewhere in the *Catalog*.

#### MATH 434. SENIOR CAPSTONE PRACTICUM (1)

A seminar course focusing on mathematical research and developments. The student is required to attend scheduled meetings, work under the guidance of a mentor on a research topic approved by the department chair, present an oral report at the end of the semester to department members and any interested audience from the campus community, and take the major field achievement test in mathematics. The date of the meetings and the achievement test will be established and posted before the start of the semester.

## MUSIC

Private Applied Music Lessons: Private instruction is offered on eight levels for the following instruments and aims to develop individual proficiency in technique and interpretation through the study and performance of the various styles found in the literature appropriate to the instrument studied. Students receive one-half credit for a weekly 25-minute lesson, one credit for a weekly 50-minute lesson. All MUAP courses may be repeated for credit. Prerequisite: Permission of Music Department. Music fee required.

MUAP 339. HARPSICHORD (.5-1)

MUAP 340. PIANO (.5-1)

MUAP 341. ORGAN (.5-1)

MUAP 342. GUITAR (.5-1)

MUAP 343. BASS GUITAR (.5-1)

MUAP 344. VOICE (.5-1)

MUAP 345. FLUTE (.5-1)

MUAP 346. OBOE (.5-1)

MUAP 347. CLARINET (.5-1)

MUAP 348. BASSOON (.5-1)

MUAP 349. SAXOPHONE (.5-1)

MUAP 350. TRUMPET (.5-1)

MUAP 351. FRENCH HORN (.5-1)

MUAP 352. TROMBONE (.5-1)

**MUAP 353. EUPHONIUM (.5-1)****MUAP 354. TUBA (.5-1)****MUAP 355. PERCUSSION-DRUM SET (.5-1)****MUAP 356. PERCUSSION-ORCHESTRA (.5-1)****MUAP 357. STRINGS (.5-1)****MUAP 358. IMPROVISATION (.5-1)****MUAP 359. HARP (.5-1)****MUAP 397. JUNIOR RECITAL (.5-1)**

During the junior year students pursuing a bachelor of arts degree in music with a concentration in performance or piano pedagogy are required to present a recital on their major instrument. Students pursuing a bachelor of arts degree in music with a concentration in composition are required to present a program of original compositions. Music fee required.

**MUAP 427. ADVANCED CONDUCTING - CHORAL (.5-1)**

Further refinement of choral music conducting skills through private study. This course may be repeated for credit. Prerequisite: MUSC 327. Music fee required.

**MUAP 428. ADVANCED CONDUCTING - INSTRUMENTAL (.5-1)**

Further refinement of instrumental music conducting skills through private study. This course may be repeated for credit. Prerequisite: MUSC 328. Music fee required.

**MUAP 430. COMPOSITION (1-3)**

Creative writing for a variety of media with an emphasis on developing skill and expertise in a variety of styles. This course may be repeated for credit. Prerequisite: MUSC 203. Music fee required.

**MUAP 450. ORCHESTRATION/ARRANGING (.5-1)**

A study of the art of scoring for the orchestra, wind ensemble, and other instrumental ensembles. Original compositions and arrangements for these groups are written. Prerequisite: MUSC 205. This course may be repeated for credit. Music fee required.

**MUAP 497. SENIOR MUSIC ACTIVITY (.5-1)**

All music majors are required to complete a senior music activity during the final year. Prior to the middle of the second semester of junior standing, a determination as to the nature of the activity is made by the student's advisor after consultation with the other music staff members. The Senior Music Activity will assume the form of a recital, lecture-recital, project, or recital-project. Details are on file in the office of the department chair. Music fee required.

**Music Ensembles**

All MUEN courses may be repeated for credit.

**MUEN 360. BAND (1-3)**

The reading and performance of band literature and the participation in campus and off-campus concerts and programs. Activities include marching band, wind symphony, and wind ensemble. Variable credit as to the student's responsibilities in the band-.

**MUEN 361. EURYTHMICS IN MUSIC ENSEMBLE PERFORMANCE (1)**

Designed to provide a means through which students may learn to perform eurythmics and closely related movement activities with music ensembles. Permission of the band director.

**MUEN 362. JAZZ ENSEMBLE (1)**

The study and performance of jazz music for the large ensemble. Idiomatic phrasing, interpretation, and improvisation are emphasized. Audition required.

**MUEN 363. JAZZ COMBO (1)**

Improvisational performance in the small combo setting and the development of a jazz and standard tune repertoire for both instrumentalists and vocalists is the focus of this course. Audition required.

**MUEN 364. WOODWIND ENSEMBLE (1)**

The study of woodwind chamber music through performance. Permission of the instructor.

**MUEN 365. FLUTE ENSEMBLE (1)**

The study of flute ensemble music through performance. Permission of the instructor.

**MUEN 366. SAXOPHONE QUARTET (1)**

The study of saxophone quartet ensemble music through performance. Permission of the instructor.

**MUEN 367. BRASS ENSEMBLE (1)**

A study of contemporary and earlier periods of brass literature. For two or more members. Permission of the instructor.

**MUEN 368. TRUMPET ENSEMBLE (1)**

The study of trumpet ensemble music through performance. Permission of the instructor.

**MUEN 369. TROMBONE ENSEMBLE (1)**

The study of trombone ensemble music through performance. Permission of the instructor.

**MUEN 370. TUBA ENSEMBLE (1)**

The study of tuba ensemble music through performance. Permission of the instructor

**MUEN 371. PERCUSSION ENSEMBLE (1)**

Emphasis is placed on multiple-percussive techniques and literature. Permission of the instructor.

**MUEN 372. GUITAR ENSEMBLE (1)**

Designed to provide the guitarist with the opportunity to perform the literature for guitar ensemble, this course will also emphasize the rearranging of literature and adaptation of music for other media. Permission of the instructor.

**MUEN 373. PIANO ENSEMBLE AND ACCOMPANYING (1)**

This course is designed to teach the art of collaborative music making. Pianists, singers, and instrumentalists, whether majors or non-majors, are welcome to sign up for this class. The focus (i.e., art song literature, four-hand piano music, or musical theater) is announced prior to the beginning of each semester. Students are assigned to ensemble teams that work in the class and in independent practice sessions to develop their sight-reading, accompanying, diction, and performance-practice skills. This course may be repeated for credit. Permission of the instructor is required to register for this class.

**MUEN 374. CONCERT CHOIR (1)**

Choral ensemble of 40 to 50 singers covering literature from all periods of music history. Active performance schedule including local, regional, national, and international venues. Open to major and non-majors. Audition required.

**MUEN 375. MASTERWORKS CHORALE (1)**

Mass choir performing large choral works often with orchestra. One performance per semester. Open to all campus and community singers. No audition required.

**MUEN 376. CHAMBER SINGERS (1)**

Choral ensemble of 20 to 30 singers. Specializing in literature from all periods of music history

Performance schedule includes campus and local performances. Generally one or two performances per semester. Audition required.

#### **MUEN 377. CONTEMPORARY VOCAL ENSEMBLE (1)**

Ensemble of 8 to 16 covering all areas of contemporary music including jazz, blues, and Broadway. Emphasis is placed on the correct vocal style for each genre and public performance. Solo singing is highly encouraged. Active performance schedule includes on-campus performance and recruiting tours throughout the region. Rhythm section players are included as part of the group. Audition required.

#### **MUEN 378. ORCHESTRA (1)**

The reading and performance of orchestral literature and the participation in campus and off-campus concerts and programs. Audition required.

#### **MUEN 379. STRING ENSEMBLE (1)**

The study of string chamber music through performance. Emphasis will be placed on the study of string quartet literature, but will also include other music for small string ensembles including duos, trios, and quintets. Permission of the instructor required.

#### **MUEN 380. MUSICAL THEATER/OPERA WORKSHOP (1)**

The study of major works in the musical theater and operatic repertoire through staged productions, scene studies, and workshops. Prerequisite: Audition. This course may be repeated for credit.

### **Music Courses**

#### **MUSC 100. FIRST YEAR SEMINAR FOR MUSIC MAJORS (1)**

First year music majors will explore a variety of topics in this seminar, including a survey of music literature, effective music performance skills, practice techniques, careers in music, as well as presentations and discussions by the music faculty in areas of their expertise. This course will include general college survival skills for music majors to assist students in their transition from high school to college.

#### **MUSC 102. MUSIC AS AN ART AND SCIENCE (2)**

This is the basic music theory course required of all elementary education majors. Reading, writing, and playing music are the basic activities. Rhythmic notation, scales, triads, seventh chords, non-harmonic tones, and modulation are presented through programmed instruction and lecture. Individual projects in writing and performing music are required.

#### **MUSC 103. MUSIC THEORY I (3)**

This four-semester sequence of courses (MUSC 103, 105, 203, 205) is designed to provide the student with a fundamental grounding in the theoretical, analytical, and stylistic aspects of Western music. The focus of this course is upon the acquisition of skills in the notation, analysis, and construction of music as it developed from the 17th through the 20th centuries. Prerequisite: Basic piano skills or concurrent enrollment in MUSC 141.

#### **MUSC 104 AURAL SKILLS I (1)**

This four-semester sequence of courses (MUSC 104, 106, 204, 206) is designed to develop the aural perception skills of the music student in the identification and performance of intervals, chords, rhythms, and harmonic sequences. Majors and minors only. Concurrent enrollment in MUSC 103 is recommended.

#### **MUSC 105 THEORY II (3)**

See MUSC 103. Prerequisite: MUSC 103.

#### **MUSC 106 AURAL SKILLS II (1)**

See MUSC 104. Prerequisite: MUSC 104. Concurrent enrollment in MUSC 105 is recommended.

### MUSC 110. FOUNDATIONS OF MUSIC THEORY (?)

An introduction to the fundamentals of music theory, this class teaches students to read music, clefs, key signatures, and musical intervals. It will also teach students the basics of solfege and aural dictation. This course cannot be used to fulfill degree requirements for the music major or minor. Prerequisite: Music entrance exam.

### MUSC 111. INTRODUCTION TO MUSIC (2)

A general studies requirement, this course provides training and experiences which will enable the student to acquire a historical-social-aesthetic perspective, to comprehend musical concepts, to discriminate quality levels, to select satisfying and stimulating musical experiences, and to empathize with the creators and performers of music.

### MUSC 138. BASIC KEYBOARD SKILLS (1)

This course will focus on keyboard skills for students with little or no keyboard experience. Students will work on mastering the basic rudiments of reading music, keyboard technique, sight reading, and harmonization, as well as learn to perform early-level solo and ensemble literature. Upon successful completion of this course with a grade of C or above, students may enroll in MUSC 140 Class Piano I.

### MUSC 140. CLASS PIANO I (1)

The Class Piano sequence (MUSC 138, 140, 141) is designed to help students acquire skills that will be essential in their careers as classroom or private music teachers. These skills include basic keyboard technique; harmonization of melodies, scales and arpeggios; solo and ensemble literature; and accompanying.. Prerequisites: Completion of MUSC 138 with a grade of C or above (student must be able to read music and have some keyboard experience) or by permission of the instructor through audition.

### MUSC 141. CLASS PIANO II (1)

This class allows the student to refine skills acquired in MUSC 140. Special attention will be given to the requirements for the piano proficiency exam and to prepare the song accompaniments most frequently used in the K-12 music curriculum. Students will build upon their harmonization skills by employing secondary chords in melodic harmonizations and improvisations. Prerequisite: MUSC 140 or by permission of the instructor through audition.

### MUSC 142. CLASS GUITAR I (2)

This purely introductory course will provide the student with techniques of tuning, maintenance, and care of the instrument as well as fundamental strumming, picking, and bar-chording techniques. Basic chord patterns and melodic devices are also included.

### MUSC 143. CLASS GUITAR II (2)

Designed for the student who possesses some knowledge but limited skills related to the guitar this course will develop skills in chording, melodic picking, strumming moderately intricate rhythms, transposition with and without the use of the capo, and some limited music and chord reading. Permission of instructor or MUSC 142.

### MUSC 144. VOICE CLASS (1)

Designed for the beginning student of voice. Voice placement, breathing, tone, diction, phrasing and other vocal skills are stressed through use of correlated group vocalization and song literature. Permission of the instructor.

### MUSC 203. MUSIC THEORY III (3)

This is a continuation of the four-semester sequence of courses (MUSC 103, 105, 203, 205) which is designed to provide the student with a fundamental grounding in the theoretical, analytical, and stylistic aspects of Western music. The focus of the course is upon the acquisition of skills in notation, analysis, and construction of traditional music as it has developed since 1600. Prerequisite: MUSC 105.

**MUSC 204. AURAL SKILLS III (1)**

This four-semester sequence of courses (MUSC 104, 106, 204, 206) is designed to develop the aural perception skills of the music student in the identification and performance of intervals, chords, rhythms, and harmonic sequences. Majors and minors only. Prerequisite: MUSC 106. MUSC 203 concurrent is recommended.

**MUSC 205. MUSIC THEORY IV (3)**

See MUSC 203. Prerequisite: MUSC 203.

**MUSC 206. AURAL SKILLS IV (1)**

See MUSC 204. Prerequisite: MUSC 204. Concurrent enrollment in MUSC 205 is recommended.

**MUSC 207. BASIC IMPROVISATION (2)**

Designed to cover the fundamental aspects of improvising against non-changing and simple chordal structures. Appropriate scales, triads, and melodic sequencing are presented together with the development of the self-confidence necessary for self-expression. This course may be repeated for credit.

**MUSC 226. MUSIC MATERIALS AND PROCEDURES (3)**

This course is required of all elementary education majors and is a study of the music program of the elementary schools. Music and teaching methods are presented for the areas of singing, listening, rhythmic responses, use of recordings, melody instruments, tuned and non-tuned rhythm instruments, and for creative experiences. Prerequisite: MUSC 102 or permission of instructor.

**MUSC 227. INTRODUCTION TO CONDUCTING (1)**

An introduction to conducting covering the basic technique and time-beating patterns. Conducting with and without the baton is introduced. Basic independence and left-hand development are covered.

**MUSC 230. WOODWIND TECHNIQUES I (1)**

This two-course sequence (MUSC 230, 231) is designed for music majors to acquaint them with the pedagogical principles of woodwind performance. The student performs on the woodwind instruments with emphasis upon the four basic members of the family (clarinet, flute, oboe, bassoon). The method of organization involves two tracks: the development of the manipulative skills and the study of teaching techniques associated with instrumental music as related uniquely to the woodwinds. Public ensemble performance is expected. Prerequisite: Music major.

**MUSC 231. WOODWIND TECHNIQUES II (1)**

See MUSC 230. Prerequisite: MUSC 230 or permission of instructor.

**MUSC 232. BRASS TECHNIQUES (1)**

Designed for music majors to acquaint them with the pedagogical principles of brass performance. The student performs on all the brass instruments during the semester. The method of organization involves two tracks: the development of the manipulative skills and the study of teaching techniques associated with instrumental music as related uniquely to the brasses. Public ensemble performance is expected. Prerequisite: Music major.

**MUSC 233. STRING TECHNIQUES (1)**

Designed for music majors to acquaint them with the pedagogical principles of string performance. The student performs on all the stringed instruments during the semester. The method of organization involves two tracks: the development of the manipulative skills and the study of teaching techniques associated with instrumental music as related uniquely to the strings. Public ensemble performance is expected. Prerequisite: Music major.

**MUSC 234. PERCUSSION TECHNIQUES (1)**

Designed for music majors to acquaint them with the pedagogical principles of percussion

performance. The student performs on all the percussion instruments during the semester. The method of organization involves two tracks: the development of the manipulative skills and the study of teaching techniques associated with instrumental music as related uniquely to percussion. Public ensemble performance is expected. Prerequisite: Music major.

#### **MUSC 237. DICTION FOR SINGERS (3)**

This course is designed for vocal performance and choral music education majors and covers instruction in and application of the International Phonetic Alphabet (IPA) in the four basic singing languages, Italian, English, German, and French.

#### **MUSC 238. VOCAL PERFORMANCE TECHNIQUE (1)**

Detailed study of vocal performance technique. Topics covered will include preparation, stage presence, and stylistic considerations for a wide variety of solo vocal repertoire. Permission of instructor. This course may be repeated for credit.

#### **MUSC 280. PERFORMANCE FORUM (1)**

A comprehensive survey of performance history, literature, and practice. The course will include group discussion, field trips, guest artists, and mandatory concert attendance. A portfolio will be required for successful completion of this course. This course may be repeated for credit.

#### **MUSC 299. SPECIAL STUDIES IN MUSIC (1-4)**

Topics for special studies will be created as needed by the Music Department. This course may be repeated without limit with different topics. Prerequisite: Music major.

#### **MUSC 303. FORMS AND ANALYSIS (2)**

The analysis of the structural forms of music from the simple phrase and period through the single-movement forms of both instrumental and vocal media provides the basis of this course. The approach utilizes analysis of existing music and the composition of representative examples. A survey of multi-movement forms and larger musical structures is included. Prerequisite: MUSC 207.

#### **MUSC 307. ADVANCED IMPROVISATION (2)**

This course is intended as a continuation of MUSC 207 Basic Improvisation with increased emphasis upon the development of a personal style as well as upon more complex harmonic sequences, scales, and rhythmic-metric considerations. This course may be repeated for credit. Prerequisites: MUSC 141 or the equivalent keyboard skill and MUSC 207.

#### **MUSC 308. JAZZ PEDAGOGY (2)**

Jazz history, ensembles, combos, rehearsal technique, and improvisation technique are covered in this course. This course is designed to give education majors an overview of jazz program curriculum and ensemble methods. Each student will run at least one rehearsal of either a combo or jazz ensemble as a requisite for course completion. Prerequisite: MUSC 103.

#### **MUSC 310. MUSIC HISTORY I ANTIQUITY TO EARLY BAROQUE (3)**

This course presents a survey of music literature, musical styles and genres, and theoretical concepts from antiquity through the works of Monteverdi. Prerequisite: Sophomore standing in music.

#### **MUSC 311. MUSIC HISTORY II EARLY BAROQUE TO 1890 (3)**

This course presents a survey of music literature, musical styles and genres, and theoretical concepts from the early Baroque to 1890. Prerequisite: Sophomore standing in music.

#### **MUSC 312. MUSIC HISTORY III 20TH-CENTURY AND WORLD MUSICS (3)**

This course presents a survey of music literature, musical styles and genres, and theoretical concepts from ca. 1890 to the present day with special attention to the musics of non-Western cultures. Prerequisite: Sophomore standing in music.

**MUSC 313. WOMEN IN MUSIC (3)**

An overview of the accomplishments of women in music from the Middle Ages to the present day. The class will investigate ways in which gender, race, and class have influenced the lives of musical women in the past and will explore the developments in the 20th century which have affected the current status of women in music. The survey will incorporate music listening assignments, paper presentations, a class lecture-recital, and visits to concerts featuring women composers and performers. Prerequisites: Music major or minor; MUSC 111.

**MUSC 314. KEYBOARD LITERATURE (3)**

A survey of the standard piano, organ, and harpsichord literature from the Renaissance to the present day, with special attention given to teaching literature of the major composers. The survey will incorporate listening assignments, in-class performance, and a field trip to the International Piano Archives at the University of Maryland. Prerequisite: MUSC 310 or MUSC 311.

**MUSC 315. HISTORY OF JAZZ STYLES (3)**

The study of what jazz is, how to listen to jazz, and jazz heritage are examined. Jazz interpretation, improvisation, listening techniques, musical concepts of jazz, and influences of jazz styles are central points of this course. Historical and stylistic aspects of jazz are also considered.

**MUSC 316. VOCAL LITERATURE (3)**

A survey of the standard art song literature for solo voice, both sacred and secular, ranging from the Renaissance through the 20th century.

**MUSC 317. OPERA AND ORATORIO LITERATURE (3)**

The study of the evolution of the standard types of opera and oratorio. Appropriate literature for specific voice types is also studied for future teaching purposes. Attendance of opera productions in Baltimore and Washington, D.C., are scheduled for the class.

**MUSC 318. MUSIC THEATER LITERATURE (2)**

A study of the music theater literature, beginning with the 19th century influences on the genre through present day repertoire.

**MUSC 319. WORKSHOP IN FOREIGN CULTURES (1-6)**

An exposure to the artistic heritage of foreign countries is provided through a supervised study tour which also involves directed field study and an integrated series of pre-tour and post-tour lectures. Prerequisite: Permission of the instructor. One to six hours credit, depending on the length and academic content of the tour. Further details may be obtained from the department chair.

**MUSC 320. GUITAR PEDAGOGY (2)**

This course compares ways to provide guitar instruction in the public school as well as in the private studio. Participants will be introduced to a wide spectrum of method books and repertoire pertaining to all performance levels. They will audit private lessons given by practicing teachers.

**MUSC 321. PIANO PEDAGOGY (2)**

The history of piano teaching, as well as the basic skills required of today's private piano teacher, form the basis for this course. In addition to basic keyboard technique and literature, students will work with such diverse topics as business policies, technology issues, public relations, comprehensive survey of methods for group and on-on-one instruction, and performing opportunities in the private studio. Students will perform an internship that will require them to teach another student for part of the semester. Special events in this class include a student recital, visit by a piano technician, videotaping student lessons, and presentations by guest speakers. Prerequisites: Completion of the piano proficiency exam and/or permission of instructor.

**MUSC 322. INSTRUMENTAL PEDAGOGY (2)**

This course is designed to acquaint the music education student with the various aspects of managing a public school instrumental music program. Philosophy, teaching methods, admin-

istration, grading, and scheduling are included. All instrumental tech classes are reviewed; therefore, it is preferable that the student have completed all instrumental tech classes prior to enrollment. Prerequisite: MUSC 203.

### **MUSC 323. VOCAL PEDAGOGY (2)**

This course is designed to give the student an understanding of the singing process, including the anatomy and physiology of the vocal instrument. It also encompasses comparative teaching methodologies and basic diagnosis and correction of vocal faults. The recent advances in voice medicine are covered. Permission of instructor.

### **MUSC 324. MARCHING BAND PEDAGOGY (2)**

This course includes the organization, rehearsal procedures, street marching, field shows of all types, formation charting, and precision-drill charting for the marching band. Prerequisite: Two semesters of college marching band.

### **MUSC 325. CHORAL METHODS AND MATERIALS (3)**

This course is designed to acquaint the music education student with the various aspects of managing a public school choral music program. Also included is the construction of skill-building exercise materials for singers of differing ages and abilities. Applications of modern learning theory are emphasized. The basics of choral diction encompassing English, Latin, Italian, German, and French are covered as well as fundamental choral literature.

### **MUSC 326. TEACHING ELEMENTARY MUSIC (2)**

This course is required of all music education majors and is a study of the music program in the public schools. Music and teaching methods are presented for the areas of singing, listening, rhythmic responses, use of recordings, melody instruments, tuned and non-tuned rhythmic instruments, and for creative experience. While emphasis is placed upon learning theories for the elementary school child, methodologies applicable to middle school and high school aged students are also included. Basic choral arranging is also introduced. Prerequisite: MUSC 101, EDUC 320.

### **MUSC 327. CONDUCTING II - CHORAL (3)**

A study of the art, technique, and problems relative to conducting and administering choral performing organizations. While public school choral ensembles receive the majority of attention, all other choral organizations are considered. Opportunities are available for practical experiences in conducting and related field observations of area performing ensembles. Prerequisite: MUSC 227.

### **MUSC 328. CONDUCTING II - INSTRUMENTAL (3)**

A study of the art, techniques, and challenges of conducting instrumental ensembles. Score study and preparation, stylistic considerations, and development of refined techniques are central elements of this course. Opportunities are available for practical experience in conducting college ensembles and for observing area performing ensembles. Prerequisite: MUSC 227.

### **MUSC 329. ELECTRONIC MUSIC MEDIA (2)**

This course is an introduction to the wide variety of electronic and computer music tools available to the musician. It includes an introduction to MIDI, synthesizers, sequencing, notation, and sound reinforcement tools and techniques. Analog and digital recording techniques are also covered. Prerequisite: MUSC 203.

### **MUSC 330. RECORDING TECHNIQUES (2)**

This is a hands-on recording techniques course. Topics include mike placement strategies, mixing methods, and analog, digital, and CD recording.

### **MUSC 331. INSTRUMENT CARE AND REPAIR (2)**

Designed for the instrumental student who intends to teach. Laboratory experience in

maintenance and repair of band instruments is coupled with a general review of the performance basics. Permission of instructor.

### MUSC 332. BRASS REPERTOIRE (1)

The study of the evolution of brass music; designed for music majors to acquaint them with the literature for brass instruments.

### MUSC 333. WOODWIND REPERTOIRE (1)

The study of the evolution of woodwind music; designed for music majors to acquaint them with the literature for woodwind instruments.

### MUSC 340. ADVANCED TOPICS IN WESTERN MUSIC (3)

This course is intended to be an extension of the Western music history curriculum and will involve a more in-depth study of selected composers and genres. Prerequisite: Sophomore standing in music. This course may be repeated for credit.

### MUSC 341. ADVANCED TOPICS IN WORLD MUSIC (3)

This course is intended to be an extension of the world music component in MUSC 312 and will involve a more in-depth study of selected non-Western musical cultures including those of India, Indonesia, and Africa. Prerequisite: Sophomore standing in music. This course may be repeated for credit.

### MUSC 342. AMERICAN MUSIC (3)

An extensive survey of the rich variety of music found throughout the history of the United States. The course will begin with the music of the early Puritans and continue through the works of contemporary composers. The survey will incorporate music listening assignments, paper presentations, a class lecture-recital, and visits to area concerts featuring American composers and performers. Prerequisite: Sophomore standing in music.

### MUSC 350. MUSIC PSYCHOLOGY (3)

A thorough survey of the rapidly growing field of music psychology. The course is divided into three different sections that include a detailed look at various contemporary issues in the field, a discussion of contemporary research methodology, including experimental design and analysis, and an overview of landmark studies. Highly recommended for music majors and psychology majors. Prerequisite: Music major or MUSC 111.

### MUSC 420. APPRENTICESHIP IN MUSIC PEDAGOGY (1-3)

Allows students to get firsthand experience in the practices and materials required to become the instructors of the future.

### MUSC 421. MUSIC RESEARCH AND INDEPENDENT STUDY (1-3)

Qualified juniors or seniors may pursue a course of independent study in their major area under the supervision of the appropriate faculty advisor. Students selected must exhibit outstanding ability and scholarship in their chosen area and must meet the requirements for the Independent Study Program as outlined elsewhere in this *Catalog*.

### MUSC 498. SENIOR MUSIC SEMINAR (1)

This seminar is a capstone course designed to review and synthesize knowledge and skills gained through music course work leading to the senior year in music. Students will prepare for and take an appropriate examination that assesses the student's knowledge. Prerequisite: Completion of all other requisite MUSC courses.

## NURSING

### NURS 100. TRANSITIONS IN NURSING (4)

This is the articulation course for LPNs who have met the eligibility requirements for accelerating their nursing education in the associate's degree program. It introduces Maslow's framework of basic human needs and develops the use of the nursing process.

### **NURS 101. FOUNDATIONS OF NURSING PRACTICE (4)**

This is the initial course in nursing upon which all other nursing courses build and expand. It is designed to develop in the student a holistic awareness of persons. The student also begins to recognize health problems. The nursing process, critical thinking, therapeutic nursing interventions, communication, and service are introduced and emphasized throughout the course. Prerequisites: BIOL 225, 226, 227, 228 and ENGL 101. Corequisites: NURS 103, CHEM 120, CHEM 120L.

### **NURS 102. NEEDS FROM BIRTH TO ADOLESCENCE (2)**

This theory course introduces the student to the individual and the family from birth through adolescence. Major focus with the integrative approach is given to normal growth and development, health maintenance and common deviations in wellness of the infant, child, and adolescent. Prerequisites: NURS 101, NURS 103. Corequisites: NURS 104, EDUC 300, BIOL 226, BIOL 228, PSYC 203.

### **NURS 103. FOUNDATIONS OF CLINICAL NURSING (4)**

The student begins to develop the skills necessary to provide healthcare. The first part of the semester is spent on the college campus in the learning center where the student practices therapeutic nursing interventions. The latter half of the semester is spent in a variety of clinical sites. Corequisite: NURS 101.

### **NURS 104. CLINICAL NURSING (3)**

The focus concerns the normal growth and developmental tasks of the family and members of the family unit through the states in the life cycle. Emphasis is given to the normal development as well as possible deviations from the normal, in the early years of the child. Each student will be scheduled to spend seven weeks (12 clinical hours weekly) at clinical agencies designated for utilization by the nursing faculty. Corequisite: NURS 102. Laboratory Component of NURS 102

### **NURS 106. HEALTH CARE NEEDS OF WOMEN (2)**

Course emphasizes reproduction as a normal physiological response. Deviations which affect family roles and common, recurring health problems of women are explored. Prerequisites: NURS 102, NURS 104. Corequisite: NURS 108.

### **NURS 108. CLINICAL NURSING (3)**

The student builds on the previous phases of the nursing process. Communication skills are increased as the student includes teaching in the plan of care. The focus is on the childbearing function of the family and deviations that may occur during the reproductive cycle. Each student will be scheduled to spend seven weeks (12 clinical hours weekly) at a clinical agency designated for utilization by the nursing faculty. Corequisite: NURS 106. Laboratory component of NURS 106.

### **NURS 110. ADULT HEALTH NURSING I (3)**

This course focuses on the practice of holistic nursing with persons experiencing common medical/surgical problems. Persons with diabetes, gastrointestinal disorders, integumentary problems, immunologic and infectious diseases, sensory deprivation, and cancer are examined. In addition, the students explore the art of self-care as it relates to caring for others. Corequisite: NURS 112.

### **NURS 112. ADULT HEALTH NURSING CLINICAL I (3)**

This course assists students in holistically caring for individuals by utilizing the nursing process along the health-illness continuum. The roles of the provider of care as a member of the discipline will be emphasized. Prerequisites: NURS 101 and NURS 103. Corequisite: NURS 110.

### **NURS 114. FAMILY HEALTH NURSING I (2)**

This course focuses on the care of families during the reproductive years utilizing the nursing process with emphasis on health promotion and maintenance. Corequisite: NURS 116.

**NURS 116. FAMILY HEALTH NURSING CLINICAL I (2)**

This course provides students with the opportunity to care for antepartal, intrapartal, and postpartal families in acute care and community settings. Corequisite: NURS 114.

**NURS 180. LPN TO RN ROLE TRANSITION (5)**

For LPN to RN articulation students only. This course will assist the student who has met the eligibility requirements for the LPN to RN articulation to make the transition from the LPN role to the Registered Professional Nurse role. An emphasis will be placed on advancing into professional nursing practice through a combination of lecture seminar and clinical experiences. Successful completion of this course allows the student to receive credit for NURS 101 and 103.

**NURS 201. MENTAL HEALTH NURSING (2)**

This course focuses on the practice of nursing with persons experiencing mental disorders. Neurobiological, psychological, and sociological theories are explored. Emphasis is placed on the continued development of therapeutic communication skills. Prerequisites: NURS 101, 103, 110, 112, 114, 116, 211, 213. Corequisite: NURS 203.

**NURS 202. ADULT HEALTH NURSING II (3)**

This course focuses on utilizing the nursing process in providing holistic care for persons that are experiencing complex health disorders. Emphasis is placed on individuals experiencing disorders of the cardiovascular, respiratory, endocrine, and musculoskeletal systems. Prerequisites: NURS 201, 203, 211, 213. Corequisites: NURS 204, 222.

**NURS 203. MENTAL HEALTH CLINICAL NURSING (2)**

This course assists students in establishing, maintaining, and terminating effective interactions with individuals and groups of people exhibiting psychosocial problems across the continuum of care. Corequisite: NURS 201.

**NURS 204. ADULT HEALTH NURSING CLINICAL II (3)**

This course provides the student with the opportunity to provide holistic care for persons that are experiencing complex health disorders by utilizing the nursing process along the health-illness continuum in a variety of health care agencies and settings. The provider of care and member of the discipline roles are expanded with an emphasis on educating the person to obtain his/her optimal level of health. Corequisites: NURS 202, 222 .

**NURS 205. SELECTED UNMET NEEDS I (2)**

Course focuses on selected, common, recurring needs/problems which threaten human is basic and higher needs. All age groups which experience such needs/problems will be examined. Current concepts in nursing theory assists in the move toward health or death with dignity. Prerequisites: All previous nursing courses. Corequisites: NURS 207, NURS 220, BIOL 302.

**NURS 206. ADULT HEALTH NURSING III (3)**

This course continues to focus on the practice of holistic nursing with persons experiencing common medical surgical problems. Emphasis is placed on individuals with alterations in genitourinary, hematological, neurological function and with burn injuries. In addition, the student explores the relationship of environment to health. Prerequisites: All previous nursing courses. Corequisites: NURS 208, 222.

**NURS 207. CLINICAL NURSING (3)**

Course will identify selected common, recurring health problems within the practice of nursing. Nursing care will be planned with individuals and families to reestablish and maintain health and to prevent illness utilizing the nursing process. Corequisite: NURS 205. Laboratory component of NURS 205.

**NURS 208. ADULT HEALTH NURSING CLINICAL III (3)**

This course continues to assist students in holistically caring for individuals by utilizing the

nursing process along the health-illness continuum. In addition, the provider of care and member of the discipline role will be expanded with added emphasis on the manager of care role. Corequisites: NURS 206, 222.

#### **NURS 211. FAMILY HEALTH NURSING II (2)**

This course focuses on families with children emphasizing normal growth and development health promotion, and maintenance through anticipatory guidance and continues developing the use of the nursing process. Select deviations from normal and restorative measures are discussed. Prerequisites: NURS 101, 103, 110, 112, 114, and 116. Corequisite: NURS 213.

#### **NURS 213. FAMILY HEALTH NURSING CLINICAL II (2)**

This course provides the student with the opportunity to care for children and families in a variety of settings. Corequisite: NURS 211.

#### **NURS 220. TRENDS IN NURSING (2)**

This course is based on an adaptation of Maslow's hierarchy of needs as they relate to the basic needs of beginning practitioners of nursing. Current issues in ethics, legal aspects, professional organization, nursing education, and patterns of practice are emphasized. Prerequisites: All previous nursing courses. Corequisites: NURS 201, 203, 205, 207, and BIOL 302.

#### **NURS 222. CONTEMPORARY NURSING (3)**

This course assists the student in examining a variety of issues involved in the practice of nursing within a changing society and health care environment. Topics explored include ethics, legal aspects, professional behaviors, life long learning, and patterns of health care delivery. Corequisites: NURS 202, 204, 206, and 208.

#### **NURS 231. INTRODUCTION TO NURSING (2)**

This is the survey course for all junior and senior level nursing classes. It is designed to provide an overview of the nursing profession. The Shepherd College BSN mission, philosophy, conceptual framework, and expected outcomes are presented. All concepts, subconcepts, and curricular threads are introduced.

#### **NURS 311. NURSING I INTRODUCTION TO HEALTH CARE (3)**

The course is designed as the basis upon which all other nursing courses develop and expand. The student is introduced to the nursing process and skills of critical thinking, decision making, and ethics/law in order to understand the health care needs of people of diverse cultures across the lifespan. Data collection is introduced via normal system approach. Prerequisite: NURS 231.

#### **NURS 313. NURSING I-A HEALTH ASSESSMENT (3)**

The course is basic to all nursing clinicals through the program. Complete instruction of health assessment using the system approach is given. The concept of nursing process introduced in NURS 231 will be examined extensively as the method by which professional nurses assist persons to achieve optimum level of health. The student will be provided opportunities to exercise critical thinking, decision making, and ethical judgment through case studies, simulations/role play, and patient interviews. Prerequisite: NURS 231.

#### **NURS 315. NURSING I-B CLINICAL COMPONENT (3)**

The course is designed to correlate theory with practice in the primary care setting. The course will initiate the student to living examples of the nursing process: 1) data collecting via interviewing and physical assessment, 2) critical thinking skills via decision making, 3) organization via planning, 4) restorations via appropriate nursing action-implementation, 5) evaluation of the nursing process to meet specific needs. Prerequisite: NURS 313.

#### **NURS 316. NURSING II HEALTH CARE OF THE ADULT (3)**

This course provides a knowledge and practice base for the medical-surgical student. The focus is primarily on the acute care setting. The course gives in-depth knowledge and principles for patient

education that include primary, secondary, and tertiary levels of prevention. This course builds upon knowledge gained in prerequisite courses and applies principles of physiology and pathophysiology to the diverse health care alterations of the adult. Prerequisite: NURS 311, 313, 315.

#### **NURS 317. ESSENTIALS IN CLINICAL PHARMACOLOGY/PATHOLOGY IN NURSING (2)**

The first course in a two-course sequence that presents clinical pharmacology and pathophysiology emphasizing rationales and safe drug administration, relationships of drug mechanisms to disease processes, effects of lifespan on drug therapy, application of nursing research to pharmacologic principles. Alterations in biologic processes that affect the body's homeostasis and various dysfunctions of biologic systems are examined, i.e., neurological, cardiovascular, and pulmonary. The rationale for diagnosis and therapeutic interventions is introduced. Prerequisite: NURS 231.

#### **NURS 318. NURSING II CLINICAL COMPONENT (3)**

This course provides guided clinical experiences for the student to operationalize the nursing process in the acute care, medical surgical adult setting. Students apply knowledge and principles of patient education to patients in the clinical setting and apply the nursing process to patients from different cultural backgrounds with diverse health care alterations. Opportunity for reinforcement and further development of assessment skills is provided through hands-on experience in the clinical setting. Experiences are also provided in the lab and/or clinical setting to assist the student in developing psychomotor skills. Students are expected to seek learning opportunities based upon self-assessed learning needs as they utilize the nursing process in multiple clinical settings. Corequisite: NURS 316.

#### **NURS 320. NURSING III PSYCHIATRIC/MENTAL HEALTH CARE (3)**

This course is designed to apply the nursing process to clients who have adaptive and/or maladaptive behaviors. The emphasis in the course is given to nurse/patient relationship and group process skills which can be applied to all areas of nursing. The socioeconomic and ethical dilemmas within communities will be explored. Primary, secondary, and tertiary prevention services to the mentally ill from diverse cultural groups are identified and discussed. The principles of pharmacology, growth and development, health education, and teaching are interwoven throughout this course. Prerequisite: NURS 311, 313, 315.

#### **NURS 322. NURSING III CLINICAL COMPONENT (2)**

Weekly clinical focuses will guide the student in applying theory from NURS 320 to patients in a variety of clinical settings, including acute inpatient units and a community mental health center. Corequisite: NURS 320.

#### **NURS 324. NURSING RESEARCH (2)**

Course is designed to introduce concepts of nursing research. The focus is on the professional nurse as a consumer of research in health and nursing. The student further develops skills in critical thinking and ethical decision making in the development of a nursing research project using the research process. Elementary concepts of statistics and the use of computer technology are introduced related to nursing research. Prerequisite: NURS 311, 313, 315.

#### **NURS 326. ESSENTIALS IN CLINICAL PHARMACOLOGY/PATHOPHYSIOLOGY IN NURSING (2)**

The second course in a two-course sequence that presents clinical pharmacology and pathophysiology emphasizing rationales and safe drug administration, relationships of drug mechanisms to disease processes, effects of lifespan on drug therapy, application of nursing research to pharmacologic principles. Alterations in biologic processes that affect the body's homeostasis and various dysfunctions of biologic systems are examined, i.e., gastrointestinal, endocrine, renal, immune. The rationale for diagnosis and therapeutic interventions is introduced. Prerequisite: NURS 317.

#### **NURS 410. ADVANCED NURSING CONCEPTS AND PRACTICE (6)**

This course will lay the foundation for the R.N. to practice with a bachelor of science in nursing.

R.N. students will establish professional and collegial relationships with nursing faculty, other R.N. students, and variety of professional nurses in health care agencies. An emphasis will be placed on advancing nursing practice through a combination of lecture, seminar, and clinical experiences.

#### **NURS 411. NURSING IV COMMUNITY HEALTH CARE (3)**

This course is designed to expand the student's knowledge of people as individuals, as members of a family, and as members of a community. Emphasis is placed on levels of prevention. With guidance, the student will identify socioeconomic, environmental, political, religious, and ethical aspects of health care which affect the health-illness continuum and the client's aspects. The student will be able to assess community health problems, identify appropriate nursing interventions and community resources in planning nursing care of diverse populations in a variety of settings. Content topics related to school health, occupational health, home visiting, and public health are introduced. Prerequisite: NURS 324. Corequisite: NURS 413.

#### **NURS 413. NURSING IV CLINICAL COMPONENT (3)**

Course is designed to correlate theory with practice. The student will be able to assess community health problems, identify and apply appropriate nursing interventions and community resources in planning nursing care of diverse populations in a variety of settings. Corequisite: NURS 411.

#### **NURS 415. NURSING V HEALTH CARE OF CHILDREN AND FAMILIES (3)**

Course is designed to examine the biophysical and psychosocial development, illness care, and health maintenance of the neonate, infant, toddler, preschool, school-age, and adolescent child. This course builds upon knowledge gained in NURS 316 Health Care of the Adult and concurrent course, NURS 411 Community Health Care. The student will apply the nursing process utilizing critical thinking skills for the diverse health care alterations in the younger populations. Corequisite: NURS 417.

#### **NURS 417. NURSING V CLINICAL COMPONENT (2)**

Course is designed to provide opportunities for exploration, application, and integration of theory content of Health Care of Children and Families to enhance priority setting and decision making skills, collaboration, and use of organizational skills. A variety of clinical settings, such as a community hospital and a university-based teaching hospital, will be utilized which will expose the student to diverse social, cultural and economic aspects of the health care of children and families. Corequisite: NURS 415.

#### **NURS 419. NURSING VI HEALTH CARE OF WOMEN (3)**

Course is designed to examine the biophysical and psychosocial aspects of human reproductive function, childbearing, sexuality, illness care, and maintenance for the woman through the life span. This course builds upon knowledge gained in NURS 316 Health Care of the Adult, NURS 415 Health Care of Children and Families, and concurrent course, NURS 411 Community Health Care. The student will apply the nursing process utilizing critical thinking skills for the diverse health care alterations in the female population. Corequisite: NURS 421.

#### **NURS 421. NURSING VI CLINICAL COMPONENT (2)**

Course is designed to provide opportunities for exploration, application, and integration of theory content of obstetric and gynecologic nursing to women throughout the life cycle. A variety of hospital, community health settings will be utilized to expose the student to diverse social, cultural, and economic components of the woman/family system. Corequisite: NURS 419.

#### **NURS 422. NURSING VII HEALTH CARE OF THE ADULT: GERONTOLOGY FOCUS (3)**

Course is designed to examine illness care, rehabilitation care, health counseling, and education for the gerontological client and family. This course builds upon knowledge gained in NURS 316 (Health Care of the Adult—medical-surgical focus). The diverse social, cultural, economic, and political components of older populations will be explored. Corequisite: NURS 424. Prerequisite: NURS 324.

**NURS 424. NURSING VII CLINICAL COMPONENT (3)**

Course is designed to provide opportunities for application and integrations of theory content of gerontological nursing. A variety of health care settings will be utilized which will expose the student to a diverse social, cultural, economic, and political component of older populations. The student will apply the nursing process utilizing critical thinking skills to the multiple alterations in health for older populations. Corequisite: NURS 422.

**NURS 426. NURSING VIII HEALTH CARE OF THE ADULT WITH COMPLEX PROBLEMS (3)**

This final course of adult health nursing focuses on the therapeutic nursing interventions used to restore health to adults who are experiencing acute and/or complex health problems. Analyzes deviations from health with attention to the implications for the individual as well as the family in coping with health problems. Analyzes the client's health care needs and the resources to meet them in collaboration with the client and health providers. Incorporates ethical and legal issues involving clients with complex needs.

**NURS 428. NURSING VIII CLINICAL COMPONENT (2)**

This is the third and final medical-surgical course of adult health care nursing. The focus is planning and providing care for persons with complex health needs. Complex and multisystem needs are explored in-depth. Selected clinical experiences in specialty areas ICU, CCU, ER, open heart surgery, and cardiac cath lab are arranged. Corequisite: NURS 426. Prerequisite: NURS 422, 424.

**NURS 434. MANAGEMENT AND ISSUES IN HEALTH CARE (3)**

This course is designed to examine current health care issues influencing professional nursing practice. The student is introduced to management principles and leadership roles and responsibilities within different health care organizations and settings.

**NURS 436. SENIOR CAPSTONE SEMINAR (1)**

This course will allow the culmination of nursing course work in which students will establish professional, collegial relationships with nursing mentors. Students will engage in creative endeavors that reflect synthesis of nursing knowledge and critical thinking, contribute to quality patient care, health care management, and nursing research. Students will choose mentors from a variety of integrated health care systems in collaboration with nursing faculty.

**NURS 440. SCHOOL HEALTH SEMINAR (3)**

This course is designed to prepare nursing students to conduct and coordinate school health service programs. Through didactic sessions and clinical practica, students are provided with the theoretical knowledge and competencies required for certification as a school nurse by the West Virginia Department of Education.

**OFFICE TECHNOLOGY****OFTC 100. INTRODUCTION TO KEYBOARDING (2)**

Emphasis will be on the development of speed and accuracy in the operation of the computer keyboard and includes basic document production of letters, memos, reports, and tables. Offered for those who need basic keyboarding skills.

**OFTC 103. MEDICAL TERMINOLOGY (3)**

This course will develop knowledge and understanding of the language used in all aspects of health care records. Basic word structure of medical terms, diagnosis, and terminology used in determining patient care and treatment will be covered.

**OFTC 105. FUNDAMENTALS OF BUSINESS COMMUNICATION (3)**

This course is designed to enable students to develop and improve their writing ability. Instruction is provided in sentence structure, punctuation, usage, and organizational thought. Students regularly practice writing effective sentences, paragraphs, and short essays. The course is designed to be taken prior to enrolling in ENGL 101.

### **OFTC 150. TROUBLESHOOTING (3)**

Students will completely remove all modular components from a PC motherboard. Installation of various software, memory configuration, network security, detection of network connection problems, and interpretation of error messages will be taught in a small group environment. Prerequisite: CIS 102 or BSED 250.

### **OFTC 204. MEDICAL OFFICE TECHNOLOGY (3)**

Major instructional concepts include techniques for effective communications, medical document formatting, record-keeping, patient records management procedures, and medical transcription. Prerequisites: OFTC 103, CIS 102, and BSED 104, or permission of instructor.

### **OFTC 205. COMPUTERIZED ACCOUNTING APPLICATIONS (3)**

This course is an introduction to the basics of computerized accounting in the modern business office. The student will develop and maintain accounting records for a small business using a current software program. Prerequisite: ACCT 201 or CBUS 103.

### **OFTC 240. REPAIRING AND MAINTAINING THE IBM PC (3)**

Students will work in small groups to disassemble, check, upgrade, and reassemble a computer. Students will examine the various parts of the computer and learn about the switches and settings necessary for making a computer function as reliably as possible. Students will be guided step-by-step through the logic behind solving problems that may exist on a PC. Prerequisite: OFTC 150 or permission of instructor.

### **OFTC 260. LOCAL AREA NETWORKS (3)**

This course focuses on the basics of network terminology and network user commands. The student will have hands-on exercises on the installation of hardware/software and operating system components of a local area network. Cabling, network interface cards (NIC), connectors, hubs/bridges, and other hardware components will be explained. Prerequisite: OFTC 240 or permission of instructor.

### **OFTC 285. MEDICAL BILLING AND INSURANCE (3)**

An in-depth coverage of medical insurance, including the claims process, the HCFA 1500, and the UB92. All types of medical insurance will be covered. Managed care including some contract law as it relates to managed care will be incorporated. Prerequisites: OFTC 103, BIOL 225 and 226

### **OFTC 292. OFFICE TECHNOLOGY INTERNSHIP (3)**

This course provides practical experience in local and regional businesses, federal government or non-profit organizations. Students learn how to translate classroom theory and methods into professional skills and opportunities. Prerequisite: Must have completed over half of the requirements for graduation with an associate's degree and must have a 2.5 overall GPA.

## **PARALEGAL**

### **PARA 101. LEGAL RESEARCH AND WRITING I (4)**

Examines basic legal research, sources, and methods; techniques of legal analysis with emphasis on specific cases and issues; introduction to legal writing, use of law library, and legal terminology

### **PARA 102. LEGAL RESEARCH AND WRITING II (4)**

Advanced research methods and analysis and writing methods including computerized research, writing of briefs and memoranda, use of West Virginia Code annotation, and legal correspondence and documents other than pleadings. Prerequisite: PARA 101.

### **PARA 110. LEGAL ASSISTING (3)**

An overview of various roles of the paralegal including interviewing and investigation. Overview of courts/legislatures, legal profession, types of employment, and ethics.

**PARA 120. GENERAL LAW (3)**

Discussion of various kinds of law: constitutional, civil, criminal, administrative; trends in legal practice including specializations; and hot topics. Will explore views of representing individuals who may be accused of certain types of crime, i.e., murder, rape, child molestation/abuse.

**PARA 210. LAW OF DOMESTIC RELATIONS (3)**

Study of domestic relations law and rules of family practice; case preparation; and concentration on West Virginia law. Prerequisite: PARA 101 and 120.

**PARA 220. CIVIL LITIGATION AND PROCEDURE (4)**

Overview of civil litigation process from initial interview through trial including preparation of pleadings and trial documents. Rule of civil procedure examined particularly those pertaining to service of process and discovery. Prerequisite: PARA 101 and 102, or concurrent with PARA 102.

**PARA 250. CRIMINAL LITIGATION AND PROCEDURE (4)**

Overview of criminal litigation process, rules of criminal procedure, and preparation of pleadings and trial documents. Prerequisite: PARA 101 and 102.

**PARA 260. BUSINESS LAW AND CONTRACTS (3)**

General overview of business law including various forms of business, i.e., corporations and partnerships, bankruptcy, and basic contract law. Prerequisites: PARA 101 and 120.

**PARA 270. REAL ESTATE/WILLS AND ESTATES (3)**

Examination of real estate laws; drafting deeds, leases, contracts of sale, closing documents; and title searches. Overview of laws of probate, will drafting, and probate of estates. Prerequisite: PARA 101 and 120.

**PARA 292. INTERNSHIP (1-6)**

Cooperative education allows students to acquire essential, practical skills by being exposed to the reality of the work world beyond the boundaries of campus. May be repeated for credit, but not in the same term. Usually offered every term. Prerequisite: Must have completed over half of the requirements for an associate's degree and must have a 2.50 GPA overall.

**PHILOSOPHY****PHIL 101. INTRODUCTION TO PHILOSOPHY (3)**

An introductory consideration of language, meaning, and inference; of knowledge, truth, and certainty; of types (schools) of philosophy; of arguments regarding the existence of God; and of values.

**PHIL 210. SOCIAL PHILOSOPHY (3)**

Analysis of theories of the nature of humans, social institutions, social ethics, social purposes, patterns of relationship, and the problem of freedom and regulation.

**PHIL 304. PHILOSOPHY OF RELIGION (3)**

An analysis of certain elements of religious thought. Problems of religious language, knowledge and faith, and the existence of God and evil will be examined from various religious perspectives.

**PHIL 305. HISTORY OF PHILOSOPHY (3)**

Survey of the major movements in philosophy from ancient Greece to the 20th century.

**PHIL 306. TWENTIETH-CENTURY PHILOSOPHY (3)**

Emphasis on pragmatism, existentialism, and analytic philosophy.

**PHIL 315. ETHICS (3)**

Problems of choice within the context of society as considered by representatives of various philosophical and Christian traditions.

## PHOTOGRAPHY/COMPUTER IMAGERY

(Also see Art and Graphic Design)

### PHOT 281. BLACK AND WHITE PHOTOGRAPHY I (3)

Fundamentals of black and white photography and darkroom techniques. Topics include basic film processing and printing; basic lighting and exposure selection; composition and visual thinking; and use of auxiliary lenses. Corequisite: ART 140.

### PHOT 282. BLACK AND WHITE PHOTOGRAPHY II (3)

A continuation of Black and White I. Topics include processing and printing of 120 and 4 x 5 size film; zone system of exposure and development; filters; and advanced printing techniques. Prerequisite: PHOT 281.

### PHOT 380. HISTORY OF PHOTOGRAPHY (3)

An introductory course which explores, through student emulation and experimentation, the compositional sensibilities and aesthetic strategies of both historic and contemporary photographers.

### PHOT 381. STUDIO PHOTOGRAPHY I (3)

This course serves as an introduction to the methodology and technology of studio photography. Emphasis is placed upon product and portrait photography, tabletop design, and lighting techniques. Prerequisite: PHOT 281 and PHOT 383, ART 208.

### PHOT 383. COLOR PHOTOGRAPHY I (3)

A basic course in natural color photography. Includes fundamental principles, techniques, and applications of reversal and negative-subtractive color materials and equipment used in the production of color prints and transparencies. Discussion of the special demands of color technique, color relationships, light qualities, and the kinds of characteristics of film. Prerequisites: PHOT 281 and PHOT 282, ART 208.

### PHOT 384. PHOTOJOURNALISM (3-6)

The tools and techniques of the news media and of business, public relations, journalism, sports, and publicity photography are covered. Emphasis on small-format cameras, electronic flash, and available-light photography. Examination of single picture, short picture stories, feature-story photography, layout, and captions. Prerequisites: PHOT 282 and PHOT 383, ART 208.

### PHOT 385. COMPUTER DIGITAL IMAGERY I (3)

This course serves as an introduction to the technology and use of the computer for photographic purposes. Emphasis is placed upon working knowledge and creative use of the computer in order to develop and execute aesthetic solutions to photographic digital problems. Prerequisites: PHOT 282 and PHOT 383.

### PHOT 386. COMPUTER DIGITAL IMAGERY II (3)

A continuation of the technology and use of the computer for photographic purposes developed in Computer Digital Imagery I. Prerequisites: PHOT 282 and PHOT 385.

### PHOT 387. MULTI-MEDIA (3)

A continuation of Computer Digital Imagery in which the student will explore computer technology. Emphasis is placed upon working knowledge and creative use of the computer in order to develop and execute aesthetic solutions to photographic, video, and sound problems. Prerequisite: PHOT 386.

### PHOT 392. COOPERATIVE EDUCATION IN PHOTOGRAPHY (1-6)

Intended to provide a bridge between the classroom and the professional world, cooperative education provides supervised work experience directly related to a student's major subject area and career goals. Placement will be in a public or private photography/computer imager position. May be repeated for credit, but not in the same term. Usually offered every term.

**Prerequisite:** Junior level standing with minimum overall GPA of 2.3, 2.7 in the concentration area, approval of academic department, and placement by the Career Development Center. It is recommended that the student complete an internship or practicum prior to entering a cooperative education placement.

#### **PHOT 400. SPECIAL TOPICS IN PHOTOGRAPHY/COMPUTER IMAGERY (3-9)**

This course will vary in content with each offering as areas of particular interest or timeliness not covered by the regular curriculum are explored. Offerings may focus on a specific photographic or computer imagery process or style or on a specific area of content. Each course offering under this title bears a subtitle which indicates the specific subject covered.

#### **PHOT 480. RESEARCH IN PHOTOGRAPHY (3-12)**

An upper-division course designed as a culminating experience within the concentration area of photography with emphasis on contemporary issues. The development of a portfolio and artist's statement as well as advanced standards of critical observation and analysis are expected. **Prerequisites:** PHOT 282, PHOT 485.

#### **PHOT 481. COMPUTER APPLICATIONS IN GRAPHIC DESIGN /PHOTOGRAPHY (3)**

This course introduces the student to the working relationship between graphic design and photography. Emphasis is upon the procedures and technology for producing photographs for reproduction. **Prerequisite:** PHOT 383, ART 208.

#### **PHOT 484. STUDIO PHOTOGRAPHY II (3)**

A continuation of the methodologies and technologies encountered in Studio Photography I but with greater emphasis placed upon color sensibilities and large format work as applied to product and field work. **Prerequisite:** PHOT 381, ART 208.

#### **PHOT 485. COLOR PHOTOGRAPHY II (3)**

A continuation of the methods and techniques presented in Color Photography I but with a greater emphasis placed upon color sensibilities and large format work as applied to product and field work. **Prerequisite:** PHOT 383, ART 208.

#### **PHOT 488. INTERNSHIP IN PHOTOGRAPHY (3-6)**

Supervised off-campus work experience in photography or an allied field. Seminars will be held to evaluate the integration of theory and practice. **Prerequisite:** Permission for the instructor. This course may be repeated for up to 6 hours.

## **PHYSICAL EDUCATION**

#### **PHED 104. FOUNDATIONS OF PHYSICAL EDUCATION (3)**

An introduction to teaching health and physical education. Topics include philosophy and history, psychological, sociological and scientific principles of sport and physical activity, as well as career awareness, department procedures, the Shepherd College Teaching Model for skill acquisition, and general concerns related to teaching.

#### **PHED 110. ELEMENTARY SCHOOL PHYSICAL EDUCATION ACTIVITIES (3)**

Students will develop a working knowledge of fundamental movement patterns as they relate to action songs, folk and square dance, games, creative movement, and rhythmical activities. Teaching methods, program planning, and teaching opportunities are emphasized. Elementary education majors only, must have passed PSST, and senior class standing.

#### **PHED 120. HISTORY OF SPORT AND PHYSICAL EDUCATION (3)**

Emphasizes relevant historical events that have influenced sport and physical education throughout history. (Cross-listed with RECR 120.)

**PHED 246. AQUATICS (1)**

This course emphasizes basic strokes, breathing techniques, and water safety skills, including survival floating and use of clothing as a flotation device.

**PHED 301. ELEMENTARY SCHOOL PHYSICAL EDUCATION I (3)**

Presents basic movement education teaching model for elementary school children. Students will apply principles and methods of this model through presentation of action songs, games, dances, stunts and tumbling, and elementary track. Prerequisites: PHED 104, PHED 325, PHED 326, GSPE 200, and GSPE 201.

**PHED 302. ELEMENTARY SCHOOL PHYSICAL EDUCATION II (3)**

Presents the basic movement education teaching model for elementary school children. Students will apply the principles and methods of this model through the presentation of locomotor movement, non-locomotor movement, manipulative activities, movement exploration, creative rhythmic, and rhythmical movement. Prerequisite: PHED 104, PHED 301.

**PHED 315. TEACHING TUMBLING AND GYMNASTICS (2)**

Teaches future elementary physical education instructors fundamental skills of tumbling and gymnastics. Teaching methods and safety awareness are emphasized.

**PHED 325. TEAM SPORT ACTIVITIES (3)**

Prepares future physical education teachers to teach team sports. Rules, skill analysis, practice procedures, and safety awareness will be emphasized. Taught every other year.

**PHED 326. INDIVIDUAL SPORT ACTIVITIES (3)**

Prepares future physical education teachers to teach individual sports. Rules, skill analysis, practice procedures, and safety awareness will be emphasized. Taught every other year.

**PHED 328. HEAD, TRUNK, AND EXTREMITY ASSESSMENT (3)**

An in-depth study of mechanisms, characteristics, and classification of sports injuries. Management skills of prevention, assessment, and treatment of injuries are explored and detailed study of upper and lower extremities is conducted. Prerequisites: ATHC 224 and HLTH 225.

**PHED 330. THERAPEUTIC MODALITIES AND REHABILITATION TECHNIQUES (3)**

A detailed study of the many therapeutic techniques used in the treatment and rehabilitation of sports-related injuries. Proper use of modalities as well as concepts and techniques of rehabilitation exercises will be the focus of this course.

**PHED 360. ATHLETIC TRAINING PRACTICUM I (3)**

Rehabilitation of athletic injuries is main focus. Practical application of management skills through lectures, clinical and field experiences, and individual assistance is also studied. Permission of instructor.

**PHED 365. ATHLETIC TRAINING PRACTICUM II (3)**

Use of modalities and current issues of sports medicine are emphasized. Practical application of assessment, treatment, rehabilitation as well as traveling with athletic teams is also studied. Permission of instructor. Prerequisite: PHED 360.

**PHED 370. APPLIED ANATOMY AND PHYSIOLOGY (4)**

A study of homeostatic relationships of the body and their effects on neuromuscular, circulatory and respiratory systems. Lab experiments will show how physiological functions change with exercise. Prerequisites: HLTH 225, BIOL 101 and BIOL 102.

**PHED 380. PERCEPTUAL MOTOR LEARNING (3)**

Examines how people learn motor skills and analysis of Gentile's model for acquisition. Student

will also learn how to recognize deficiencies related to motor learning and adjust teaching procedures to cope with inherent disabilities.

#### **PHED 401. TEACHING ADAPTED PHYSICAL EDUCATION (3)**

Acquaints students with the problems underlying the need for adapted physical education programs. Organization and administration of special physical education programs for the handicapped/disabled are studied. Out-of-class field experience in an approved setting required.

#### **PHED 405. APPLIED KINESIOLOGY (3)**

Study of the musculoskeletal system and its relationship to human movement. Students will identify anatomical and mechanical features of major joints of the body as well as muscles that operate them and how they interact to complete a motor skill. Prerequisites: HLTH 225, BIOL 101, BIOL 102.

#### **PHED 406. CURRICULUM AND ADMINISTRATION OF PHYSICAL EDUCATION (3)**

Enables personnel in health and physical education to understand and interpret the philosophy, principles, problems, policies, and procedures essential to the development of desirable programs. Students will develop a comprehensive physical education curriculum for teaching grades K-12.

#### **PHED 410. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION (3)**

Students will learn how to develop an accountable means of grade assessment in physical education based on a sound philosophy of skill development.

#### **PHED 430. TEACHING ELEMENTARY SCHOOL PHYSICAL EDUCATION (3)**

Examines the taxonomy of skill acquisition, teaching methods, and curriculum of physical education for grades K-5. Emphasis is on application of content in PHED 301 and PHED 302 in an elementary school. Prerequisites: PHED 301 and PHED 302.

## **PHYSICS**

#### **PHYS 201. COLLEGE PHYSICS I (3)**

An algebra- and trigonometry-based treatment of the fundamentals of selected classical physics topics including motion, force, Newton's laws, energy, momentum, gravitation, rotation, acoustics, fluid dynamics, and thermodynamics. PHYS 201L must be taken concurrently with PHYS 201.

#### **PHYS 201L. COLLEGE PHYSICS I LABORATORY (1)**

A two hour per week laboratory course focusing on selected classical physics topics including motion, force, Newton's laws, energy, momentum, gravitation, rotation, acoustics, fluid dynamics, and thermodynamics. Must be taken concurrently with PHYS 201.

#### **PHYS 202. COLLEGE PHYSICS II (3)**

An algebra- and trigonometry-based treatment of the fundamentals of selected classical and modern physics topics including acoustics, fluid dynamics, thermodynamics, electromagnetism, optics, relativity, and quantum mechanics. PHYS 202L must be taken concurrently with PHYS 202. Prerequisite: PHYS 201.

#### **PHYS 202L. COLLEGE PHYSICS II LABORATORY (1)**

A two hour per week laboratory course focusing on selected classical and modern physics topics including acoustics, fluid dynamics, thermodynamics, electromagnetism, optics, relativity, and quantum mechanics. Must be taken concurrently with PHYS 202. Prerequisite: PHYS 201L.

#### **PHYS 221. GENERAL PHYSICS I (3)**

A calculus-based treatment of fundamentals of selected classical physics topics including motion, force, Newton's laws, energy, momentum, gravitation, rotation, acoustics, fluid dynamics, and thermodynamics. PHYS 221L must be taken concurrently with PHYS 221. Prerequisite or corequisite: MATH 207.

**PHYS 221L. GENERAL PHYSICS I LABORATORY (1)**

A two hour per week laboratory course focusing on selected classical physics topics including motion, force, Newton's laws, energy, momentum, gravitation, rotation, acoustics, fluid dynamics, and thermodynamics. Must be taken concurrently with PHYS 221.

**PHYS 222. GENERAL PHYSICS II (3)**

A calculus-based treatment of the fundamentals of selected classical and modern physics topics including acoustics, fluid dynamics, thermodynamics, electromagnetism, optics, relativity, and quantum mechanics. PHYS 222L must be taken concurrently with PHYS 222. Prerequisite: PHYS 221.

**PHYS 222L. GENERAL PHYSICS II LABORATORY (1)**

A two hour per week laboratory course focusing on selected classical and modern physics topics including acoustics, fluid dynamics, thermodynamics, electromagnetism, optics, relativity, and quantum mechanics. Must be taken concurrently with PHYS 222. Prerequisite: PHYS 221L.

**PHYS 322. ELECTRICITY AND MAGNETISM (3)**

Principles of electricity and magnetism with practical applications. Prerequisites: PHYS 222 and MATH 208.

**PHYS 323. MODERN PHYSICS (3)**

Topics will include special relativity, atomic structure, nuclear structure, solid state physics, and elementary particles. Prerequisites: PHYS 222 and MATH 207.

**PHYS 330. ADVANCED LABORATORY (2)**

A series of laboratory experiments in electricity, magnetism, mechanics, and modern physics. Six hours per week. Prerequisites: PHYS 221, 222.

**PHYS 401, PHYS 404. SPECIAL PROJECTS (1 EACH)**

Experimental and theoretical research projects in specific areas of physics. Project assignment dependent upon student's ability and interest.

## **POLITICAL SCIENCE**

**PSCI 100. POLITICS AND GOVERNMENT (3)**

A consideration of concepts and issues essential to the understanding and study of politics. Classical and modern theories of the political system, including communism, fascism, democracy, and socialism are examined in an American and international context including study of specific nations. The approach of this course will be both empirical and normative.

**PSCI 101. AMERICAN FEDERAL GOVERNMENT (3)**

A study of the functions and administration of the government of the United States.

**PSCI 102. STATE AND LOCAL GOVERNMENT (3)**

A study of the functions and administration of the government on the state and county levels.

**PSCI 201. INTRODUCTION TO PUBLIC ADMINISTRATION (3)**

An introductory study of the development, organization, procedures, processes, and human relations factors in governmental administration. Particular emphasis will be placed on the study of administrative practices in the federal, state, and local governments in the United States.

**PSCI 301. PUBLIC POLICY (3)**

Study of public policy development and implementation in the United States, with emphasis on the ways in which cultural, political, and institutional factors may inhibit or expedite pursuit of public policies designed to meet societal needs and with consideration of selected contemporary issues of public policy within this framework.

**PSCI 309. PRESIDENT AND CONGRESS (3)**

Study of the ways in which presidents and members of Congress attempt to meet their responsibilities within the context of the institutional and political features of the American system; examination of the complex relationships between the president and congress; and consideration of the President and Congress in relation to past, present, and possible future settings.

**PSCI 310. PARTIES, POLITICS, AND ELECTIONS (3)**

An examination of elections in the United States. Includes consideration of the role of political parties, the media, polling, interest groups, and professional consultants.

**PSCI 315. EARLY POLITICAL THEORY (3)**

A general survey of leading theories from ancient times to the 16th century. Includes an opportunity to study the influence of political and social ideas upon the fundamental institutions of modern societies.

**PSCI 316. RECENT AND CONTEMPORARY POLITICAL THEORY (3)**

The recent schools of political thought are presented with particular emphasis on the basic ideologies of the contemporary period.

**PSCI 317. AMERICAN POLITICAL THOUGHT (3)**

A study of the growth and development of American political concepts from the Colonial period to the present.

**PSCI 320. AMERICAN JUDICIAL PROCESS (3)**

The purpose of this course is to introduce students to the American judicial process. Topics to be covered include basic legal concepts, civil law procedures, and criminal law procedures.

**PSCI 325. COMPARATIVE GOVERNMENT: WESTERN EUROPE (3)**

A comparative study of modern political institutions with particular attention to European government and politics.

**PSCI 327. COMPARATIVE GOVERNMENT: SOVIET UNION AND ITS AFTERMATH (3)**

An examination of the U.S.S.R. as a 20th-century political phenomenon, with emphasis on the political concepts it typified—including revolution, Communism, and one-party rule. Explores the dynamics of political change in Russia and other former Soviet Republics.

**PSCI 328. COMPARATIVE GOVERNMENT: ASIA (3)**

An examination of the governments of China, Japan, and Korea including their ideology, culture, theory, institutions, leadership, and politics, as well as their relations with other countries, will be explored.

**PSCI 330. POLITICS AND CIVIL RIGHTS (3)**

This course examines the politics of the African-American civil rights struggle with an emphasis on the years 1960 through 1965. The latter is often thought of as the high point of success for the Second Reconstruction. The course is divided into three major sections: 1) an overview of the politics of civil rights from the end of the Civil War through the Eisenhower administration; 2) the Kennedy-Johnson presidencies; and 3) a very brief overview of the post-Johnson years, with an emphasis on the changes that have occurred in political party strategies and public opinion as they effect and are effected by African-American civil rights.

**PSCI 331. RACE, GENDER, AND POLITICS (3)**

The purpose of this course will be to acquaint the student with political issues that are related to race and gender. Historic, economic, legal, and ideological context will be presented. Individuals, groups, and government responses will be examined, as well as how similar issues are viewed differently in various cultures and political situations.

**PSCI 343. PRACTICUM: PUBLIC POLICY AND ADMINISTRATION (3)**

This course is a form of independent study that integrates lessons learned in the classroom with supervised work experience in government. Students will be afforded the opportunity to attend seminars conducted by the Eastern Management Development Center and to work at the center. Written reports will be required as part of this class.

**PSCI 400. THE SUPREME COURT AND CONSTITUTIONAL LAW (3)**

Examines the Supreme Court as a legal and political decision-making body; analyzes the development of the American constitutional system, the evolution of fundamental doctrines in constitutional law, and the nature of Supreme Court opinions; relates Supreme Court decisions to contemporary political, social, and economic problems.

**PSCI 401. CONSTITUTIONAL LAW: CIVIL RIGHTS AND CIVIL LIBERTIES (3)**

Examines Supreme Court cases and doctrines on freedom of speech, press and association, on race and sex discrimination, on privacy, on protection of criminal defendants, and on related questions; emphasizes recent decisions and on-going development of guidelines and doctrines by the present Court; relates constitutional issues to political issues involving civil rights and civil liberties.

**PSCI 403. INTERNATIONAL RELATIONS (3)**

Surveys the political relationships among states, emphasizing the methods and goals of diplomacy; analyzes concepts such as the balance of power, collective security, and the peaceful settlements of disputes.

**PSCI 404. INTERNATIONAL ORGANIZATION OR WORLD GOVERNMENTS (3)**

Examines the theory and structure of international organizations with special emphasis on the U.N.; other organizations to be discussed include NATO, the European Community, OAS, and other regional organizations.

**PSCI 406. AMERICAN FOREIGN POLICY SINCE WORLD WAR II (3)**

An analysis of American foreign policy since 1945. Special emphasis is placed on the Cold War rivalry between the U.S. and U.S.S.R. Recent developments will also be treated.

**PSCI 407. INTRODUCTION TO INTERNATIONAL LAW (3)**

A survey of the nature, sources, and development of international law. Study of substantive elements through case studies will be stressed.

**PSCI 410. POLITICAL ETHICS (3)**

An examination of some contemporary issues of power, freedom, obligation, human rights, and community, in the light of major philosophical understandings of ethical behavior in the public sphere.

**PSCI 411. THE POLITICS OF POVERTY (3)**

This course examines the variety, extent, and causes of poverty especially in the United States, the relationship of poverty to societal values, the political situation of the poor, and various policy responses.

**PSCI 412. METROPOLITAN POLITICS (3)**

An examination of local government in metropolitan areas; emphasis is placed on economic, demographic, and political characteristics of the urban community and their implications for effective and responsive government.

**PSCI 413. TECHNIQUES OF RESEARCH (3)**

An opportunity for independent study and preparation for graduate work. Included are methodology, historiography, and extensive work with source materials.

**PSCI 425. READINGS IN POLITICAL SCIENCE (3)**

An examination of a selected topic in political science devoted to extensive reading of classic, standard, and/or contemporary monographs, articles, and/or books. Specific topic and presiding professor will be announced prior to the registration period. Prerequisite: Minimum overall GPA of 2.5.

**PSCI 443. INTERNSHIP IN GOVERNMENT (1-15)**

This course provides full- or part-time work experience in federal, state, or local agencies; in private trade and policy organizations that are active in the public sector; or in other appropriate placements. The goal is to enable the student to gain practical knowledge of political processes, public administration, or the formation and implementation of public policy. Interns must have a 2.5 GPA, must complete half of the 128 credits required for graduation before the internship begins, must submit applications to the department early in the semester preceding the internship, and must follow the department's norms and procedures for internships. A copy of the norms and procedures is available from the department chair or from the department's coordinator of internship programs.

**PRINT TECHNOLOGY****PRNT 101. INTRODUCTION TO PRINT (2)**

This course introduces students to a variety of printing and binding processes used in the graphic communications industry. Emphasis will be placed on those processes used in the area: web offset, sheet-fed, gravure, flexography printing. Topics will be covered by professionals working in the field and will be supported by tours of facilities utilizing the process.

**PSYCHOLOGY****PSYC 203. INTRODUCTION TO PSYCHOLOGY (3)**

A survey course introducing the core areas of psychology, including neuropsychology, learning and memory, intelligence, developmental psychology, stress and health, personality, abnormal psychology, psychotherapy, and social psychology.

**PSYC 206. SPECIAL TOPICS IN PSYCHOLOGY (3)**

Introduction of selected topics in psychology which are not included in the psychology curriculum.

**PSYC 301. ADOLESCENT DEVELOPMENT (3)**

Designed for those with a professional interest in adolescence. Course content emphasizes cognitive, physical, and psychosocial-affective variables which affect adolescent development.

**PSYC 302. PSYCHOLOGY OF AGING (3)**

This course explores both the physiological and psychosocial correlates of the aging process. Topics include the sensory-motor, hormonal, biochemical, nutritional, and neurological aspects of aging; factors related to substance abuse, memory loss, attention deficits, delirium, and dementia; and key factors in the mental health of the elderly. Consideration is also given to cultural and social-political aspects of aging, as well as death and the process of dying. Prerequisite: PSYC 203.

**PSYC 304. COMPUTERS IN THE BEHAVIORAL AND SOCIAL SCIENCES (3)**

This course will introduce the use of computer technology in the behavioral and social science disciplines. Available technology and software will be described. Students will learn to communicate and collaborate with others electronically, to use Internet resources to find information, and to use computers to collect, analyze, model, and present data. Prerequisite: PSYC 203. Completion of a statistics course is strongly suggested, but not required.

**PSYC 305. SOCIAL PSYCHOLOGY (3)**

A study of the interaction of individuals in group situations, the products of collective activity, and their influence upon the individual. Prerequisite: PSYC 203.

**PSYC 306. SPECIAL TOPICS IN PSYCHOLOGY (3)**

Introduction of selected topics in psychology which are not included in the psychology curriculum.

**PSYC 310. PSYCHOLOGY OF PERSONALITY (3)**

A study of a variety of theories of personality determinants, structure, and functioning. Prerequisite: PSYC 203.

**PSYC 311. INTRODUCTION TO CLINICAL PSYCHOLOGY (3)**

An introduction to the methods, techniques, and approaches to an understanding of personality and the treatment of emotional disturbances.

**PSYC 312. PRACTICUM IN PSYCHOLOGY I (3)**

This course consists of on-site practical experience and a supervisory discussion/content seminar related to paraprofessional work in psychology in one of the following areas: 1) teaching, 2) research, 3) clinical work. Prerequisite: Permission of the psychology faculty.

**PSYC 313. PRACTICUM IN PSYCHOLOGY II (3)**

Same course description as PSYC 312. A second practicum in psychology. Prerequisite: PSYC 312.

**PSYC 314. FIELD EXPERIENCE IN ART THERAPY (3)**

Same course description as PSYC 312 Practicum in Psychology. This course shall function separately in title only from that of PSYC 312 Practicum in Psychology. In order to meet undergraduate art therapy recommendations of the American Art Therapy Association, it is necessary for the practicum to be identified as Field Experience in Art Therapy. The course will be offered at the same time, etc., as PSYC 312 (when demanded) and will meet all the requirements and expectations of PSYC 312.

**PSYC 316. ART THERAPY (3)**

An introduction to therapeutic techniques using artistic productions as an aid to psychotherapy. The course involves an analysis of approaches with specific clinical populations; e.g., juvenile delinquents, geriatric clients, etc. This course also includes a historical and theoretical appraisal of the use of art therapy in both clinical practice and research.

**PSYC 320. HUMAN SEXUAL BEHAVIOR (3)**

A course designed to investigate the scope of intrapersonal and interpersonal human sexual behavior. A psychological approach is emphasized, examining the acquisition of sexual scripts through learning, varieties of sexual experience, both typical and atypical, and the psychodynamics of sexual adjustment. Prerequisite: PSYC 203.

**PSYC 321. INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY (3)**

The application of psychological theory and methodology to individuals and groups in organizational settings. Topics include managerial appraisal and consultation, employee training and development, personnel research, improving employee relations, and designing optimal work environments.

**PSYC 323. CONVERSATIONAL SIGN LANGUAGE I (3)**

This course involves both the teaching of the American Sign Language (ASL) as a skill to be acquired by the student in both the receptive and signing modes, and the development of a knowledge of cultural differences between deaf and hearing people. A further objective of the course is to have the student experience at least one social situation frequented by people who are deaf.

**PSYC 324. CONVERSATIONAL SIGN LANGUAGE II (3)**

This course involves advanced skill acquisition of the American Sign Language (ASL), both in the signing and receptive modes. The culture of deaf people is also further explored along with the literature on deafness and appraisal of state legislative activity favoring ASL as fulfilling the foreign language requirement for high school graduation.

**PSYC 325. HEALTH PSYCHOLOGY (3)**

This course explores contemporary trends and techniques in the field of health psychology. Included are such topics as psychological intervention in physical illness, adherence, activity level, obesity, smoking prevention, acute and chronic stress, stress appraisal, delay in seeking treatment, immunological competence, interventions with children, lifestyle change programs, holistic psychology, and the health care system.

**PSYC 326. PSYCHOLOGY OF SUBSTANCE ABUSE (3)**

The focus of this course is to provide an in-depth understanding of the nature of addiction to various psychoactive substances and its treatment. This includes a study of the psychological and social factors associated with substance abuse and theories of etiology, along with an understanding of the scope of services and critical issues in services for persons with psychoactive substance use disorders.

**PSYC 328. DANCE THERAPY (3)**

Survey of dance movement therapy, its evolution, theoretical approaches, principles, goals, techniques, and uses with various populations.

**PSYC 330. FAMILY THERAPY (3)**

The focus of this course is on the major schools of family therapy. The family is viewed as a unit of treatment and as a multigenerational emotional system. Case studies are emphasized.

**PSYC 360. ABNORMAL PSYCHOLOGY (3)**

A study of the classifications, dynamics, symptoms, and treatment of abnormal behavior. Prerequisite: PSYC 203.

**PSYC 361. SURVEY OF PHYSIOLOGICAL PSYCHOLOGY (3)**

This course involves a study of structure and function of the nervous system. Students will gain an appreciation for the biological basis of everyday behaviors, such as language, movement, emotion, reading, writing, sleeping, learning, and personality. Likewise, students will gain an understanding of the physiological correlates of many types of psychological pathology, such as schizophrenia, depression, autism ADD/ADHD, Alzheimer's disease, Parkinson's disease, drug addiction, learning disabilities, and stroke rehabilitation. The aim of the class is for students in many helping-related fields (e.g., psychology, nursing, education, gerontology) to gain an appreciation of just how pervasive the impact of physiological variables are within the context of a psychosocial approach throughout the lifespan. Prerequisite: PSYC 203.

**PSYC 364. LIFESPAN DEVELOPMENTAL PSYCHOLOGY (3)**

This course consists of an introduction to the scientific study of human development over the lifespan. Prerequisite: PSYC 203.

**PSYC 365. PSYCHOPHARMACOLOGY (3)**

Psychopharmacology is the study of drugs that influence mood and behavior. This course will address principles of drug action, basic physiological mechanisms by which psychoactive drugs work, drugs used to treat mental/emotional/neurological disorders, and drugs of abuse. Social issues surrounding drugs will be only briefly discussed, as it is most important to understand drug mechanisms and effects before forming opinions on social policy. Students will be required to write a research paper on a topic of interest to them within the field. Prerequisites: PSYC 203 and PSYC 361 or 363.

**PSYC 367. MOTIVATION AND EMOTION (3)**

This course examines the organization of purposive behaviors and the origin of psychological experiences that accompany behaviors and emotions. Major theoretical perspectives and experimental paradigms will be considered (biopsychology, behaviorism, cognitive theory, decision-making strategies, and evolutionary psychology). The scope of topics will include biologically driven behaviors, the effect of conditioning and reinforcement of behaviors, behavior modifica-

tion, how decisions are made, social motivation, emotions, and complex motives. Prerequisite: PSYC 203 and PSYC 361 or 363.

#### PSYC 370. SENSATION AND PERCEPTION (3)

Sensation and perception is the subfield of psychology which examines how elemental stimuli in the environment (e.g. light) are translated into a complex psychological phenomenon (e.g. perception of color). All five sensory modalities (vision, audition, olfaction, gustation, and tactile/body senses) will be addressed. Physiology of the sensory systems and theories of perception are the major thrust of this course. An attempt will be made to address applications of this field (e.g. acuity testing and therapy). Prerequisites: PSYC 203 and PSYC 361 or 363.

#### PSYC 371. COGNITIVE PSYCHOLOGY (3)

An introduction to human cognitive processes including attention, perception, memory, concept formation, psycholinguistics, problem solving, and thinking. Course emphasizes the role of experimentation in understanding the information processing systems underlying human cognition, language, and memory. Prerequisite: PSYC 203.

#### PSYC 372. PSYCHOLOGY OF LEARNING (3)

A survey of methods, empirical findings, and theoretical interpretations in human and animal learning, including such topics as classical and operant conditioning, animal cognition, and machine learning. The course also covers discrimination, generalization, and the role of reward/punishment, and other motivational variables in learning. Prerequisite: PSYC 203.

#### PSYC 392. COOPERATIVE EDUCATION IN PSYCHOLOGY (1-9)

Cooperative education is a form of education which integrates classroom study with paid planned, and supervised work experiences in the public and private sectors. Cooperative education allows students to acquire essential, practical skills by being exposed to the reality of the work world beyond the boundaries of campus, enhancing their self-confidence and career direction. An agreement is signed by the employer supervisor, the faculty supervisor, and the student. The co-op may be repeated for credit. Prerequisite: Sophomore standing; minimum 2.0 GPA, 2.5 major GPA; approval of the Department of Psychology; placement by the Career Center.

#### PSYC 400. EXPERIMENTAL PSYCHOLOGY (4)

As the first course in a series of two, the Experimental Psychology class is designed to prepare students for the senior thesis capstone course. Students will gain an understanding of how to approach research questions in a scientific manner, which reduces as many alternative interpretations and potential sources of bias as is possible. Students will see that each research design is valuable for different types of questions and that the replication of findings using different methods, different subjects, at different times, and in different places is the key to giving theories strength and credibility. Through the study of the research methods that psychologists use, students will become more educated consumers of research findings appearing in the daily media. Prerequisites: PSYC 203 and MATH 314 or BADM 224.

#### PSYC 404. PSYCHOLOGY SEMINAR (3)

A course designed to serve the needs of students who are majoring or minoring in psychology and who expect to pursue graduate studies in the field. The purpose of this course is to allow faculty to expose students to topics not included in the present curriculum, or topics which, although included, are not covered in sufficient depth for pre-professional students. The seminar may include sharing the results of individually assigned readings, individualized research, and/or discussion of theoretical or research topics as reported in contemporary literature and chosen by the faculty instructor. Prerequisite: Permission of instructor.

#### PSYC 406. SPECIAL TOPICS IN PSYCHOLOGY (3)

Introduction of selected topics in psychology which are not included in the psychology curriculum.

**PSYC 415. PSYCHOLOGICAL TESTS AND MEASUREMENTS (3)**

A course designed to develop knowledge of psychological instruments available for the appraisal of human behavior and skill in administering and interpreting those tests and measurements. Prerequisite: PSYC 203.

**PSYC 420. HISTORY AND SYSTEMS OF PSYCHOLOGY (3)**

An overview of the historical and philosophical basis of psychology and the relationship of contemporary systems. Prerequisite: PSYC 203.

**PSYC 430. HUMANISTIC PSYCHOLOGY (3)**

An exploration of the field of humanistic psychology. The theoretical orientations of selected humanistic psychologists (e.g. Carl Rogers, Leo Buscaglia, Viktor Frankl, Harold Greenwald, and Abraham Maslow) are covered in depth.

**PSYC 440. GROUP PSYCHOTHERAPY (3)**

An introduction, through direct participation, to a variety of approaches and techniques for fostering personal enrichment and effectiveness through group experience.

**PSYC 485. SENIOR THESIS (3)**

Students acquire and perform skills involved in conducting and reporting empirical research. These include the forming of hypotheses, designing research to test those hypotheses, analysis of the resulting data, and the writing up of a complete report of the research results following APA guidelines. This is the Department of Psychology's capstone course, designed to foster and evaluate the students' fundamental understanding of psychology as an empirical research science. Prerequisite: PSYC 400.

**RECREATION AND LEISURE STUDIES****RECR 108. INTRODUCTION TO SPORT STUDIES (3)**

For students who want to enter the world of fitness or athletics as a professional as opposed to a classroom teacher.

**RECR 115. INTRODUCTION TO THERAPEUTIC RECREATION (3)**

Provides understanding of methods and techniques employed in serving special populations with recreation opportunities. A 20-hour field experience in a therapeutic setting is required.

**RECR 120. HISTORY OF SPORT AND PHYSICAL EDUCATION (3)**

Emphasizes relevant historical events that have influenced sport and physical education throughout history. (Cross-listed with PHED 120.)

**RECR 125. INTRODUCTION TO COMMERCIAL RECREATION /TOURISM (3)**

Examines purpose and function of leisure delivery system in the commercial setting. Topics include development and operation of commercial goods and services including tourism, resort, and campground industries as well as small business management.

**RECR 140. INTRODUCTION TO LEISURE STUDIES (3)**

A study of the historical and philosophical foundation of recreation and leisure and its impact on society. Topics include recreation programs in various settings, commercial and tourism, therapeutic recreation, and career opportunities.

**RECR 210. LEISURE ACTIVITIES (3)**

Prepares students to lead and teach leisure activities as well as implement programs. Activities for special populations will also be explored.

**RECR 226. SPORT PROMOTION/MARKETING/FUND RAISING (3)**

Emphasizes policies, procedures, and administrative skills to organize and develop both internal and external techniques.

**RECR 228. SPORT ADMINISTRATION (3)**

Emphasizes effective leadership and management styles, planning and organizing, personnel, time management, budgeting, legal concerns, and future directions of sport programs.

**RECR 250. FIELD EXPERIENCES IN RECREATION (3)**

Provides practical career-related experiences in leisure services. A supervised 120 hour experience is required. Students should consult the practicum handbook for specific course procedures. Prerequisite: RECR 140.

**RECR 292. INTERNSHIP IN RECREATION AND LEISURE SERVICES (1-3)**

This course is designed to provide students with an opportunity to enhance their career-related experience in a recreation, leisure, or sport service organization. Prerequisite: Must have sophomore standing with a minimum 2.5 overall GPA and approval of the academic department and placement by the Career Center. This course may be repeated for credit.

**RECR 316. RECREATION PROGRAMMING (3)**

A study of principles, policies, and procedures needed to organize, direct, and conduct recreation programs. Prerequisite: RECR 140.

**RECR 320. FACILITIES MANAGEMENT (3)**

Examines design, construction, operation, and management of physical education, recreation, and sport facilities.

**RECR 324. SPORTS WRITING (3)**

This course focuses on techniques of reporting, interviewing, gathering information, and writing sports stories from basic news to feature style format. Practical experience and lab work are included.

**RECR 325. SPORT APPRECIATION (3)**

This course is designed for students to explore and understand the various aspects of sport at the various levels: scholastic, intercollegiate, professional, and international.

**RECR 331. MEDICAL TERMINOLOGY FOR THERAPEUTIC RECREATION (3)**

This course provides students with a working knowledge of medical terms used in therapeutic recreation. Taught every third semester.

**RECR 332. CAMP COUNSELING (3)**

Provides skills necessary to plan, organize, and work in a camp setting. Permission of department chair.

**RECR 335. LEISURE FOR THE AGING (3)**

Introduces students to leisure activities for the elderly. Topics include procedures for programming, assessment, and implementation.

**RECR 342. CAMPUS RECREATION AND EVENT MANAGEMENT (3)**

A study of the organization, administration, and supervision of campus recreation, intercollegiate athletic events, and local recreational events. Students will assist in these activities as part of their class requirements.

**RECR 343. 21ST-CENTURY TOURISM (3)**

This course examines the commercial potential and the unique business opportunities associated with the travel and tourism industry.

**RECR 344. HOSPITALITY (3)**

An examination of the numerous aspects of the hospitality and commercial recreation industry including lodging, food, beverage, customer service, hospitality management, safety, and even management. This course will also make students aware of jobs in the industry.

**RECR 345. THERAPEUTIC RECREATION IN AN INSTITUTIONAL SETTING (GATEWAY) (3)**

Students will examine fundamental techniques in providing recreation activities for the disabled. Students will be catalysts working in partnership with the staff at various institutions to foster self-esteem and optimum health for their clients. Students will attend four class trips to various agencies in the metropolitan Washington, D.C., area.

**RECR 350. FIELD EXPERIENCE IN LEISURE SERVICES AND SEMINAR (3)**

Provides career-related experiences through 180-hour supervised field work in approved settings. Prerequisites: RECR 140 and RECR 250. This course may be repeated up to 9 hours.

**RECR 355. SPORT PHOTOGRAPHY (3)**

Gives students hands-on experience in taking and developing film relating to sports activities.

**RECR 370. ENVIRONMENTAL EDUCATION (3)**

Examines philosophy, techniques, and application of education in and for the out-of-doors. Topics include history and development of outdoor education, environmental education, including school camping, conservation, and interpretation techniques.

**RECR 380. LEADERSHIP IN LEISURE STUDIES (3)**

Provides skills for successful leadership through observations in recreation settings. A 40-hour out-of-class recreational activity and leadership experience is required.

**RECR 392. COOPERATIVE EDUCATION IN RECREATION LEISURE STUDIES (1-9)**

This course is offered each semester, including the summer. May be repeated for credit, but not during the same term. Prerequisite: 2.5 GPA in major plus RECR 140, RECR 210. This course may be repeated up to 9 hours.

**RECR 407. MANAGEMENT IN RECREATION AND LEISURE SERVICES (3)**

Prepares the student to manage sport, recreation, and leisure services in public and private settings. Topics include public relations, human relations, personnel management, budgets, and management theory. Prerequisites: RECR 140; senior standing recommended.

**RECR 430. THERAPEUTIC RECREATION PROGRAMMING (3)**

Provides an understanding of the methods and techniques employed in formulating and conducting programs for special populations. Prerequisite: RECR 330.

**RECR 431. ISSUES AND TRENDS IN THERAPEUTIC RECREATION (3)**

A study of contemporary issues and problems of special populations in relation to corresponding philosophy and theory. Prerequisite: RECR 115. Taught every third semester.

**RECR 432. DOCUMENTATION IN THERAPEUTIC RECREATION (3)**

This course acquaints students with the regulations of governmental and accrediting organizations which affect therapeutic recreation professionals and the development and implementation of therapeutic recreation programs in a variety of clinical settings.

**RECR 440. LATE ADULTHOOD ISSUES (3)**

This course is designed to acquaint students with the field of gerontology. The class content will enable the student to better understand the older person's experience as a result of aging.

**RECR 449. PRE-PRACTICUM (1)**

Course content includes writing a résumé, cover letter, interviewing for the internship in addition to completing other requirements prior to enrolling in RECR 450 Recreation Internship.

**RECR 450. RECREATION INTERNSHIP (9)**

Internship programs provide supervised career-related experience in a leisure service organization. Student must complete a minimum of 400 agency hours in a setting that demonstrates

planning, leadership, administrative, and supervisory skills. Students should consult the *Practicum Handbook* and follow specific procedures stated. Prerequisites: RECR 140, RECR 216, RECR 407, RECR 449, junior/senior status with 2.5 GPA in major.

#### RECR 460. SEMINAR IN SPORT-RELATED ISSUES (3)

Investigates issues and problems facing sports through a variety of sports materials.

## RELIGION

#### RELG 308. OLD TESTAMENT (3)

Survey of the Old Testament, concentrating on the history of the Hebrew covenant-community of people, their understanding of life in relation to God, and the literary forms in which they expressed this understanding. Offered upon demand.

#### RELG 309. NEW TESTAMENT (3)

Covers the life and teachings of Jesus as described in the Gospels, the writings of Paul, and the contents of other New Testament books, along with certain critical questions regarding authorship and interpretation of New Testament material. Offered upon demand.

#### RELG 325. GREAT RELIGIOUS BOOKS (3)

Examines a number of the great books which have helped shape classic Christian thought in Western culture. The concepts of law, justice, order, authority, and salvation as they occur in the writings of major religious thinkers are stressed. Selections from the Old and New Testaments: St. Augustine, Abelard, Aquinas, Luther, Calvin, Hooker, Pascal, Kant, Kierkegaard, Tillich, Bonhoeffer, Barth, and Buber will be read and discussed. Offered upon demand.

#### RELG 330. HISTORY OF EARLY CHRISTIANITY (3)

The history of Christianity from New Testament times to the Reformation will be studied. Emphasis will be on geographical spread, significant persons, philosophies, governments, and theological concerns (see HIST 330). Offered upon demand.

## RUSSIAN

When demand for them is warranted, sequenced courses in Elementary and Intermediate Russian are offered under a RUSS prefix number: RUSS 101, RUSS 102, RUSS 203, and RUSS 204. Each course carries three hours credit.

## SAFETY TECHNOLOGY

#### SAFT 113. GENERAL PHYSICAL SCIENCE FOR SAFETY TECHNOLOGY (3)

A fundamental survey of physics and chemistry with special emphasis on practical application in fire prevention, fire hazards, and fire suppression.

#### SAFT 151. FUNDAMENTALS OF OSHA (3)

This course provides a detailed review of various Occupational Safety and Health Administration (OSHA) regulations including hazard communication, confined space, lockout/tagout, personal protective equipment, hazardous waste operation, emergency response, emergency action, fire prevention plans, and respiratory protection.

#### SAFT 180. HOSPITAL SECURITY MANAGEMENT (3)

An introduction to hospital security management practices, this course covers program development, implementation and management, budgeting, personnel staffing, identification of security vulnerabilities, investigation techniques, and information management practices applicable to healthcare facility security.

#### SAFT 209. INDUSTRIAL HYGIENE (3)

This course examines the principles of industrial hygiene applicable to various industries. Topics covered include the recognition of chemical, physical, biological, and environmental hazards; methods of hazard control; and mitigation and use of various environmental testing and monitoring equipment.

**SAFT 220. SAFETY MANAGEMENT I (3)**

Students will learn to analyze hazard problems, to evaluate alternative solutions, and to design the required hardware, devices, and methods needed to eliminate hazards in a variety of industrial applications. Industrial and accident prevention laws pertaining to industrial safety and health, including workers' compensation laws, OSHA regulations, and industrial property protection laws, will be examined. Prerequisite: SAFT 150 Introduction to Occupational Safety and Health.

**SAFT 221. SAFETY MANAGEMENT II (3)**

A continuation of SAFT 220 Safety Management I, this course introduces the more advanced techniques and principles of safety program management. Using real-life scenarios as study models, the course overviews the elements of a viable corporate safety program. Prerequisite: SAFT 220 Safety Management I.

**SAFT 232. HOSPITAL SAFETY I (3)**

An introduction to hospital safety management practices, this course covers program development, implementation and management, job safety analysis, hazard recognition, safety inspection, safety committees, fire safety, and industrial hygiene practices applicable to healthcare facilities.

**SAFT 233. HOSPITAL SAFETY II (3)**

A continuation of SAFT 232, this course provides an in-depth review of safety and environmental compliance issues applicable to healthcare facilities. Topics include blood borne pathogens, radiation safety, laser safety, and biological and hazardous waste management.

**SAFT 240. THE INDUSTRIAL FIRE BRIGADE (3)**

An introduction to the organizing, equipping, and training of fire suppression teams within institutions and factories, etc. Maintaining and improving the efficiency of such teams and coordination of their assignments with the efforts of fire companies will be emphasized.

**SAFT 280. DIRECTED STUDY SAFETY TECHNOLOGY (1-6)**

This variable credit course allows students to pursue a safety technology research project of particular interest. Students registering for this course must have prior approval from the program coordinator for safety technology.

**SAFT 292. INTERNSHIP IN SAFETY TECHNOLOGY (3)**

Practical experience in fire service organizations in which the student engages in on-site activities of a practical nature. Interns learn how to translate classroom theory and methods into professional skills. Activities are under the supervision of trained personnel. Application for the internship must be made to the program coordinator for safety technology.

**SOCIAL WORK****SOWK 201. INTRODUCTION TO SOCIAL WORK (3)**

Sophomore-level course designed to introduce the beginning-level social work student to the issues and knowledge with which social welfare and social work are concerned. Through examination of the scope of social welfare as a concept, the structures that have grown out of it, and the theory and practice techniques which enable the structures to function, this course will attempt to lay the base for later, more detailed and advanced study of basic policy and practice concerns. The students will be introduced to the generalist concept of social work practice upon which the undergraduate curriculum is built and will have the opportunity to explore their own readiness to identify with the values, principles, and practices of the social work profession. Required for all social work majors. Prerequisites: SOCI 203, PSYC 203, or consent of instructor.

**SOWK 300. COMMUNITY SERVICE LEARNING (3)**

Community Service Learning provides students an opportunity to actively participate in both the classroom and the community to foster an awareness of social issues and citizenship development. The course emphasizes interactive, experiential education by placing curricular concepts

in the context of community. Students use critical thinking skills as they evaluate and synthesize these concepts through actual problem solving. Students see connections between service and learning through writing, reflection, and discussion as they evaluate experiences, analyze the connection to and the role of social services agencies, and meet in seminars to process their experience.

### **SOWK 301. SOCIAL WELFARE AS A SOCIAL INSTITUTION (3)**

A survey of the historical development of social welfare institutions and the societal processes devised to deal with social welfare concerns. Special attention is given to the origin and development of the American social welfare system as well as current trends and issues in the social welfare field. Prerequisites: SOCI 203 and SOCI 205.

### **SOWK 305. HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT I (3)**

The first of two courses in a sequence designed to introduce the student to theories and knowledge of the bio-psychosocial development of individuals within the context of a range of social systems. The dynamic interaction of human beings and their sociocultural context is explored in each of the developmental stages of the human lifespan. Particular attention is given to group memberships, family dynamics, and cross-cultural distinctions. Special emphasis is also placed on ethical issues, differing values, and the role of social institutions in both enhancing and limiting human growth and potential. This course is focused on the earlier part of the lifespan, through the adolescence and young adulthood. It introduces the systems model and how organizational and community systems affect client systems. Prerequisite: PSYC 203.

### **SOWK 306. HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT II (3)**

The second of two courses in a sequence designed to introduce the student to theories and knowledge of the bio-psychosocial development of individuals within the context of a range of social systems. This course offering examines the impact of biological, psychological, and sociocultural systems on middle through late adulthood. It includes material on gender roles, sexism, sexual orientation, retirement, death, and dying. The impacts of social and economic forces and macro system responses to the challenges of development in adulthood are explored. Prerequisite: SOWK 305.

### **SOWK 311. SOCIAL WORK METHODS I (3)**

An introduction to the basic interviewing techniques and skills utilized in social work practice. The mechanics of conducting interviews, gathering information, and recording interviews will be covered. Techniques used in one-to-one interviews, multiple interviews, and groups will be discussed.

### **SOWK 312. SOCIAL WORK METHODS II (3)**

A study of the fundamental concepts and principles of direct person-to-person social work practice and the theories of human behavior used in social work intervention. A major aim of the course is to acquaint the student with techniques, strategies, and assumptions in functioning as a change-agent. The basic social work values, problem-solving processes, decision-making methods, and means of collecting and analyzing data are covered. Prerequisite: SOWK 311.

### **SOWK 313. SOCIAL WORK METHODS III (3)**

This course is designed to be an introduction to the topic of administration and supervision in the human services. The purpose of the course is to give BSW level practitioners a knowledge and skill base for beginning administrative and supervisory practice. The content of the course will include an exploration of formal organizations, management styles and theories, issues in supervisor interpersonal and organizational communication, program planning, and evaluation as a function of social planning. The format of the course is designed to combine formal lecture presentations with experimental exercises, simulations, and films in an effort to explore the materials from a variety of perspectives. Prerequisite: SOWK 311 and 312 or consent.

**SOWK 320. CHILD WELFARE SERVICES (3)**

An introduction to the areas of child welfare problems, needs, and services in America. The historical development of child welfare services is surveyed as well as dealing with major current issues. Course content includes public and private agencies and specialized services in the categories of dependent and neglected children, delinquent children, physically and mentally handicapped children, adoptions, foster care, and institutional services. Prerequisite: SOWK 301.

**SOWK 402. SOCIAL GERONTOLOGY (3)**

An interdisciplinary consideration of the sociological, psychological, and biological processes of aging with emphasis on modes of social intervention. Important aspects of the demography of the aged are clarified, as is the aging's relationship with the family. Studies in changes in intelligence, memory, brain function, and behavior accompany a look at the physiological aspects of the psychology of aging. Normal and pathological physical changes and the effects of exercise receive attention. Discussions of environmental and social issues such as prolongation of life, institutionalization, economics, neighborhood planning, public policy, and community services are examined in their particular applications to older persons and the aging processes. Strategies and techniques of the development and delivery of social services are presented. Prerequisites: SOWK 301, 305, 311, 312, or consent of instructor.

**SOWK 404. SOCIAL WELFARE SEMINAR (3)**

Gives the advanced undergraduate student an opportunity to explore further and integrate, in a generic way, knowledge learned in individual courses covering many other areas of content. There is in-depth analysis of social work values, professionalism, social change, and systems of delivering human welfare services. Prerequisites: SOWK 301, SOWK 311, SOWK 312.

**SOWK 407. FIELD EXPERIENCE IN SOCIAL WORK I (3)**

The culmination of the social welfare student's course work in which the student will be expected to transform theory into practice through direct delivery of human welfare services in an approved community agency under the direction of a qualified supervisor. The student works in an agency 10 hours per week and attends a two-hour seminar held weekly on the College campus. The College faculty and the agency supervise work closely to insure the student undergoes an intense, thorough, broad experience in direct service to people in need. Prerequisites: SOWK 311, SOWK 312.

Note: All students required to complete field work must fill out a field work application form in duplicate during the semester preceding the proposed field work. Forms can be obtained from the chair of the Social Work Department.

**SOWK 408. FIELD EXPERIENCE IN SOCIAL WORK II (3)**

Continuation of Field Experience in Social Work I.

Note: All students required to complete field work must fill out a field work application form in duplicate during the semester preceding the proposed field work. Forms can be obtained from the chair of the Social Work Department.

**SOWK 409. FIELD EXPERIENCE SEMINAR I (2)**

Weekly seminar which aids the student in meeting the objectives of the field experience program and in applying, in an integrated manner, the theoretical concepts and principles learned in the classroom to the actual delivery of social services. Through use of the case presentation format, the student will be exposed to a variety of change agent, client, target, and action systems and will further develop the ability to analyze and evaluate differing interventive approaches and techniques. The seminar will also expand the student's knowledge of and experience with group problem-solving and professional relationships. Prerequisites: SOWK 311, SOWK 305 or consent of instructor.

**SOWK 410. FIELD EXPERIENCE SEMINAR II (1)**

Weekly seminar which aids the student in meeting the objectives of the field experience program and in applying, in an integrated manner, the theoretical concepts and principles learned in the

classroom to the actual delivery of the social services. Through use of the case presentation format the student will be exposed to a variety of change agent, client, target, and action systems and will further develop the ability to analyze and evaluate differing interventive approaches and techniques. The seminar will also expand the student's knowledge of and experience with group problem-solving and professional relationships. Prerequisites: SOWK 311, SOWK 305, and consent of instructor.

### **SOWK 411. FIELD EXPERIENCE IN SOCIAL WORK III (3)**

The culmination of the social welfare student's course work in which the student will be expected to transform theory into practice through direct delivery of human welfare services in an approved community agency under the direction of a qualified supervisor. The student works in an agency 20 hours per week and attends a two-week seminar held weekly on the College campus. The College faculty and the agency supervisor work closely to insure the student undergoes an intense, thorough, broad experience in direct service to people in need. Prerequisites: SOWK 311, SOWK 312, SOWK 407, SOWK 408.

### **SOWK 415, SOWK 416. READINGS IN SOCIAL WORK (3 EACH)**

Selected, in-depth analysis of specialized areas of social welfare. The class is structured around intensive reading in a concentrated area with follow-up discussion groups. Each student prepares a research paper exploring some aspect of the topic under study. Content areas include historical analysis, policy formulation, practice theory, comparative policy and theory, and research theory and methodology. Prerequisites: SOWK 301, SOWK 310, SOWK 311 or permission of the instructor.

### **SOWK 417. SEX AND GENDER IN CONTEMPORARY SOCIETY (3)**

This course explores changing roles for women and men in contemporary society. Rapid social change creates crisis and opportunity for individuals and society. Women and men are presently undergoing transitions in the social psychological, economic, and political spheres of their lives. Students critically analyze some of the current changes in gender roles. Lecture material is integrated with experiential material in the form of classroom activities. It is assumed that students have a basic knowledge of core concepts in sociology and social work. Prerequisite: SOCI 203 General Sociology or permission of instructor.

## **SOCIOLOGY**

### **SOCI 203. GENERAL SOCIOLOGY (3)**

Origin and development of groups and social changes. Prerequisite for all other courses in sociology and/or social welfare. Not recommended for freshmen.

### **SOCI 205. SOCIAL PROBLEMS (3)**

A study of current sociological problems.

### **SOCI 303. THE FAMILY (3)**

A short history of types of families and a study of orderly family living.

### **SOCI 307. POPULATION AND URBAN PROBLEMS (3)**

A study of the theories of population, the interdependence of the peoples of the world, and population as a factor in the analysis of social problems.

### **SOCI 309. SOCIOLOGY OF RELIGION (3)**

The structure and function of organized religion in traditional and industrial societies. The reciprocal relations of religious, economic, and political systems in contemporary America.

### **SOCI 312. INTRODUCTION TO JUVENILE DELINQUENCY (3)**

Gives an overall view to the major problems involved in juvenile delinquency. Special emphasis is placed upon the individualization of the youthful offender, the nature and functions of juvenile courts, problems of parents, and the more effective usage of community resources.

**OCI 333. THE SOCIOLOGY OF SPORT (3)**

This course surveys the principles that underlie the social structure and processes that create and transform the social institutions within the institution of sport. It also investigates the social milieu in which sport participation is embedded with respect to who participates, when, where, and the consequences of participation.

**OCI 390. THE SOCIOLOGY OF VIOLENCE (3)**

This course is a survey of patterns and trends of violence in American society. These patterns and trends concern interpersonal, domestic, police, corporate, prison, schools, media, collective, and political violence. The course also examines theories, preventive treatment and public policies concerning violence.

**OCI 402. CRIMINOLOGY (3)**

An inquiry into crime causation and treatment, with complementary attention given to selected types of crime.

**OCI 403. ETHNIC RELATIONS (3)**

A survey of ethnic relations within American society, supplemented with illustrations from other societies.

**OCI 404. SOCIOLOGY SEMINAR (3)**

Designed for students who have a major or minor in sociology and who expect to pursue graduate study in the field.

**OCI 405. RESEARCH METHODS (3)**

Introduces the scientific method in sociology research. It will include the development and testing of hypotheses and will cover techniques such as observation, interviewing, and questioning. Prerequisite: MATH 315 Statistics or consent of instructor.

**OCI 406. COMMUNICATION IN AMERICAN SOCIETY (3)**

Special emphasis is placed upon mass communications and the structure of function of communication as the art of transmitting information, ideas, concepts, and attitudes from one person or group to another.

**OCI 407. COLLECTIVE BEHAVIOR (3)**

This course centers on the relatively unstructured, spontaneous, unpredictable, temporary, and usually irrational aspects of human behavior, including such social behavior as rumors, fads, fashions, crazes, panics, escapes, riots, protests, collective delusions, migrations, and disasters.

**OCI 410. SOCIAL THEORY (3)**

The nature and development of social thought from ancient times to the present is surveyed. The influence upon social conditions by the development of sociological theories is stressed.

**OCI 411. SOCIAL STRATIFICATION (3)**

A study of the factors which account for differences in influence, power, and social prestige held by different individuals and groups in the community and the society. Also considered are the theories of stratification and the relationships between social class and education, occupational choice, political preference, and religious affiliation. The relationship between social class and social mobility is reviewed.

**OCI 412. MEDICAL SOCIOLOGY (3)**

The purpose of this course is to provide an overview of the general field of medical sociology. Research and analysis of the medical environment from a sociological perspective will be explored. The course will focus on the major concerns of medical sociology: social facets of health and illness, the social functions of health institutions and organizations, the relationship of

systems of health care delivery to other social systems, and the social behavior of health personnel and consumers of health care services.

### **SOCI 419. INTERNSHIP IN SOCIOLOGY/CRIMINAL JUSTICE (3)**

This course provides supervised field experience enabling students to integrate theory and practice. A variety of community-based organizations are used for student placement. The course may not be repeated. Prerequisites: Junior or senior standing; 2.5 minimum overall GPA; permission of sociology faculty.

## **SPANISH**

### **SPAN 101. ELEMENTARY SPANISH I (3)**

A basic, culturally-oriented course in conversational Spanish designed for beginning students who wish to develop skills in speaking, reading, writing, and comprehending Spanish. Emphasis is placed on oral communication through dialogue and guided compositions. Audio and video tapes of Spain and Mexico are extensively used.

### **SPAN 102. ELEMENTARY SPANISH II (3)**

A continuation of SPAN 101, this course allows students to strengthen their comprehension and speaking proficiency in Spanish by providing extensive practice in oral and written communication and self-expression and thorough discussions and oral presentations of readings in the culture of Spain, Mexico, Central America, and South America. Prerequisite: SPAN 101.

### **SPAN 203. INTERMEDIATE SPANISH I (3)**

A review of the basic structures and phonetics of the Spanish language studied through readings and discussions of the culture and literature of Spain and other countries in Central and South America, and enhanced through further oral communication practices, brief compositions, and oral reports. Prerequisites: SPAN 101 and SPAN 102.

### **SPAN 204. INTERMEDIATE SPANISH II (3)**

A continuation of SPAN 203, this course is designed for more advanced students and allows them to strengthen their proficiency in Spanish through advanced structural and oral exercises and several different kinds of writing assignments. Prerequisites: SPAN 101, SPAN 102, and SPAN 203.

### **SPAN 301. ADVANCED CONVERSATION AND COMPOSITION (3)**

A course designed to help students sharpen their oral and writing skills through the use of guided conversation and composition. Topics for discussion include the family and cultural differences. Prerequisite: SPAN 204 or permission of the coordinator.

### **SPAN 303. THE CONTEMPORARY HISPANIC WORLD (3)**

Based on current documentation (literature and film) of contemporary society in Spain and Latin America, the course strives to give students an understanding of these cultures from a political, historical, social, and literary perspective. Prerequisite: SPAN 204 or permission of the coordinator.

### **SPAN 304. INTRODUCTION TO SPANISH AND LATIN AMERICAN LITERATURE (3)**

An introduction to textual analysis, the course comprises prose, poetry, and drama. The texts are studied using current critical techniques. Prerequisite: SPAN 204 or permission of the coordinator.

### **SPAN 305. SPANISH FOR BUSINESS (3)**

A course that will focus on the language of business, commerce, and management with the purpose of enabling the student to function better in a job market that requires language specific skills. Through oral and written exercises, students will learn to deal with business situations in the Spanish speaking world. Prerequisite: SPAN 204 or permission of the coordinator.

### **SPAN 310. SURVEY OF SPANISH LITERATURE I (3)**

An introduction to the study of literary movements from the Middle Ages to the Golden Age, highlighting major representative works. Prerequisite: SPAN 304 or permission of the coordinator.

**SPAN 311. SURVEY OF SPANISH LITERATURE II (3)**

A study of the major literary and philosophical movements in Spain from the 18th through the 20th centuries. The student will be exposed to examples of theater, prose, and poetry. Prerequisite: SPAN 304 or permission of the coordinator.

**SPAN 312. SURVEY OF LATIN AMERICAN LITERATURE I (3)**

An introduction to the study of Latin American literature through representative works. Students engage in an examination of the literature of the New World beginning with the conquest and going on to Romanticism. Literary study will include analysis of prose and poetry. Prerequisites: SPAN 304 or permission of the coordinator.

**SPAN 313. SURVEY OF LATIN AMERICAN LITERATURE II (3)**

A continuation of major literary movements in Latin America from post-Modernism to the present. Through the study of prose and poetry, students will be exposed to the social, artistic, and historical aspects of Latin America that these works evoke. Prerequisite: SPAN 304 or permission of the coordinator.

**SPAN 400. SEMINAR IN LITERATURE I (3)**

A seminar course focusing on a literary genre, movement, period, or figure chosen by the instructor and approved by the coordinator. The student is expected to attend regular meetings of the seminar, participate in open discussions, and present a series of short written and oral reports related to the topic chosen for study. The student is also responsible for submitting a major documented paper which individually investigates an aspect of the topics of the course as a whole.

**SPAN 401. SEMINAR IN LITERATURE II (3)**

A seminar course with the same format and requirements as SPAN 400 but concentrating on a different genre, movement, period, or figure chosen by the instructor and approved by the coordinator. Prerequisites: SPAN 310 or 311 or 312 or 313.

**SPAN 402. SEMINAR IN LITERATURE III (3)**

A seminar course with the same format and requirements as SPAN 400 but focusing on a different genre, movement, period, or figure chosen by the instructor and approved by the coordinator. Prerequisites: SPAN 310 or 311 or 312 or 313 and permission of the coordinator.

**SPAN 403. SEMINAR IN LITERATURE IV (3)**

A seminar course with the same format and requirements as SPAN 400 but centering on a different genre, movement, period, or figure chosen by the instructor and approved by the coordinator. Besides SPAN 400, students may also sign up for SPAN 401 and/or SPAN 402 and 403 and receive three credit hours for each course successfully completed. None of these courses is a prerequisite for the other two, but permission of the coordinator is necessary for admission. Prerequisites: SPAN 310 or 311 or 312 or 313.

**SPAN 410. PRACTICUM IN SPANISH (3)**

A course designed in alliance with the Washington Semester Program or Co-op Program to allow college credit for practical work experience in the Washington/Baltimore areas. Prerequisites: SPAN 301 or 303 or 304 or 305 and permission of the instructor.

**SPAN 419. INDEPENDENT STUDY IN SPANISH (1-6)**

An independent plan of study determined by the instructor and student, with syllabus approved by the department. See detailed requirements for independent study in Section V, Academic Information. This course may be repeated up to 6 hours.

**THEATER****THEA 203. ACTING I (3)**

Fundamentals of acting. Basic theories and concepts in stage acting for the beginning student. Emphasis on relaxation techniques and improvisation exercises.

**THEA 204. INTRODUCTION TO THEATER (3)**

Develops an appreciation and understanding of theater as a fine art through normal lecture and attendance at live theater productions. Emphasis on the artists of the theater including playwrights, directors, designers, and actors.

**THEA 205. THEATER TECHNOLOGY (3)**

Fundamentals of scenery construction and lighting through formal lecture and practical classroom experience. Laboratory requirements include assignments on construction and running crew.

**THEA 207. THEATER PRACTICE (3)**

Assigned theater projects supervised by faculty.

**THEA 208. THEATER PRACTICE (3)**

Assigned theater projects supervised by faculty.

**THEA 309. DIRECTING I (3)**

Fundamentals of directing stage plays. Emphasis on the work of the director in relation to actor, designer, and text analysis.

**THEA 310. PRODUCTION (3)**

Advanced studies in theater technology. Emphasis on assigned theater projects. Consent.

**THEA 311. DIRECTING II (3)**

Advanced directing examines the work of the director in relationship to the rehearsal process. Assigned project. Prerequisite: Directing I, consent.

**THEA 312. ACTING STUDIO I (3)**

Basic process work to prepare the student for scene study. Emphasis on modern/contemporary scenes and monologues. Prerequisite: Acting I, consent.

**THEA 314. ACTING STUDIO II (3)**

Fundamentals of scene study work. Emphasis on character analysis and the importance of exercise work and its relationship to a text. Consent.

**THEA 316. ACTING STUDIO III (3)**

Advanced scene study work. Emphasis on ensemble work and its relationship to performance. Assigned project. Consent.

**THEA 340. STAGE MANAGEMENT (3)**

Detailed study of the role of the stage manager. Examines production duties, the rehearsal process, performances, and post-production.

**THEA 341. HISTORY OF THE THEATER (3)**

The development of the theater with special attention to period theaters and theatrical styles which influence modern stage productions.

**THEA 346. THEATER DESIGN (3)**

A study of the theory and practice of theater design. Emphasis on scenery, lighting, and costume design.

**WASHINGTON SEMESTER**

**WASH 390. THE WASHINGTON SEMESTER INTERNSHIP (6-12)**

The Washington Semester Program supplements classroom learning with practical knowledge.

providing work experience in agencies and organizations in the Washington, D.C. metropolitan area. Each intern works four full days a week in a setting that is matched to the student's skills, interests and career goals. The program is open to all majors, provided the student has a 2.5 GPA and has completed one-half of the requirements for graduation before the beginning of the internship. Other requirements are detailed in the Program's norms and procedures, copies of which are available from the Washington Semester Program coordinator and the department chairpersons. All Washington Semester interns must also register for WASH 391.

#### WASH 391. THE WASHINGTON SEMESTER SEMINAR (3)

Open only to registrants in WASH 390. This interdisciplinary seminar meets once a week to examine American society through analysis of one or more basic concepts from a variety of academic perspectives. It provides a larger framework of understanding for participants in the Washington Semester internship experience. Members of the seminar write a major research paper.

## WOMEN'S STUDIES

#### WMST 201. INTRODUCTION TO WOMEN'S STUDIES: THEORY ACROSS THE DISCIPLINES (3)

A team-taught course dealing with the classic feminist and women's studies text in addressing theory and questions about gender from the disciplines of social sciences, humanities, fine arts, and natural sciences.

#### WMST 421. WOMEN'S STUDIES CAPSTONE/INDEPENDENT STUDY (3)

An independent study project individualized according to student interest and designed to permit focus and specialization in the student's major or field of interest proposed to the Women's Studies Advisory Committee for approval. See detailed requirements for independent study in Section V, Academic Information.

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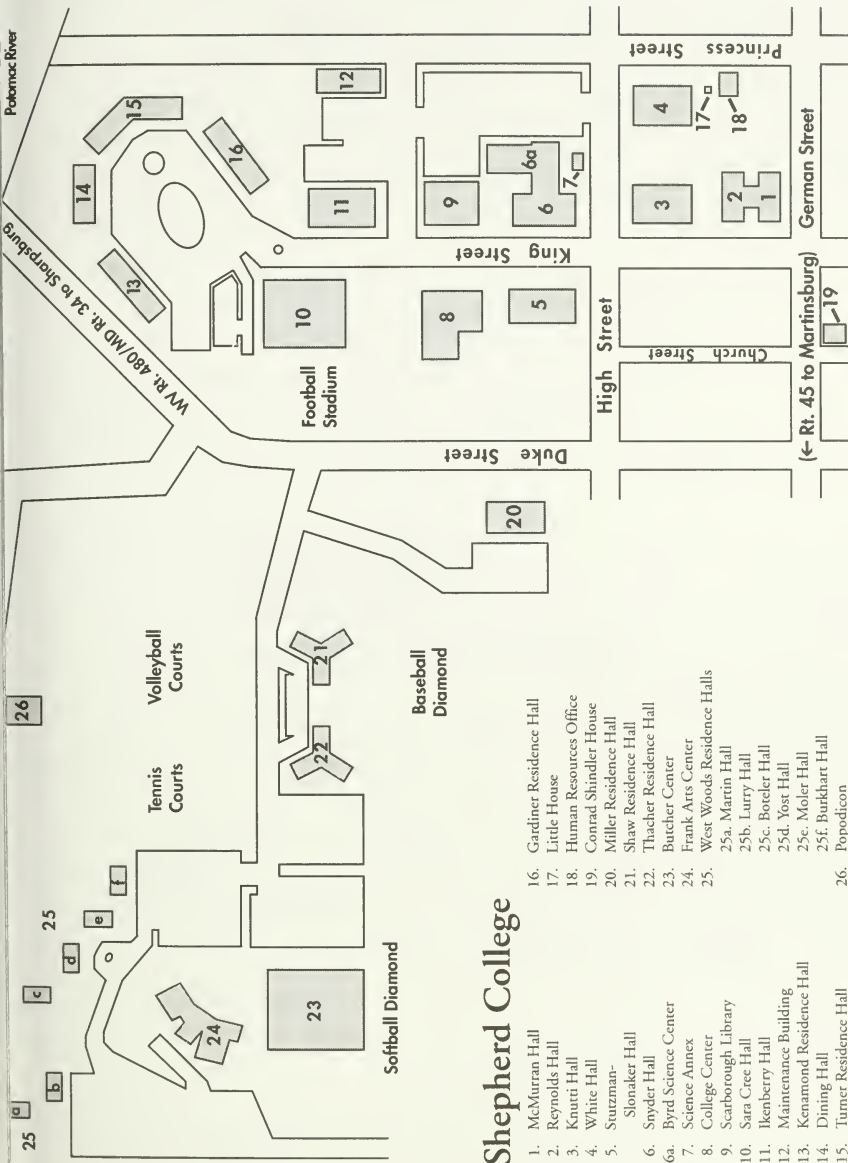
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Mailing Address \_\_\_\_\_  
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Telephone \_\_\_\_\_  
area code number

High School/College Name \_\_\_\_\_ Address \_\_\_\_\_

Year & Semester you wish to enter Shepherd \_\_\_\_\_

will be entering as a Freshman \_\_\_\_\_ Transfer \_\_\_\_\_ Non-degree \_\_\_\_\_ Re-Admit \_\_\_\_\_ Honors \_\_\_\_\_

Major fields of study or interest \_\_\_\_\_  
(see listing in catalog of programs offered)

Extracurricular activities of interest: Athletic (name sport) \_\_\_\_\_

Debate \_\_\_\_\_ Dramatics \_\_\_\_\_ Music \_\_\_\_\_ School Publications \_\_\_\_\_

Student Government \_\_\_\_\_ Fraternities/Sororities \_\_\_\_\_ Other \_\_\_\_\_

Please send me the following materials for admissions: \_\_\_\_\_

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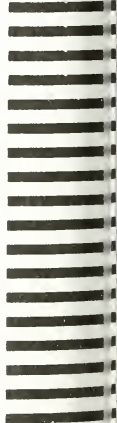
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